DELEUZE AND LIFELONG LEARNING

CREATIVITY, EVENTS AND ETHICS

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Preface

Attempting to summarize the work of philosopher Gilles Deleuze (1925–1995) under a single heading, even one as broad as creativity, would be a foolhardy enterprise. And yet, over and over, he equates creativity and truth, creativity and critique, creativity and life itself. If it is true that it is only in the name of one's creation that one has something to say at all, for Deleuze it is because "[t]here is no other truth than the creation of the New: creativity, emergence" (1983, pp. 146–147). This does not mean that we are called upon to constantly talk about creation, which is, he states, a solitary activity: but it is in the name of our creation that we have something to say at all (Deleuze, 2003, p. 293).

As a teacher, trainer and lifelong learner, it seems to me that Deleuze, and the thinkers he reveres, analyses and re-engineers, are laying down an increasingly important challenge in this reverence for creativity. If the processes which make up the world are emergent in the ways he claims, then each encounter with something new creates a space to learn something new: for Deleuze, "life itself is educative" (May and Semetsky, 2008, p. 155). And, while many thinkers are keen to interrogate the *possibility* of thinking differently, Deleuze (both alone and with his collaborators) begins with the assertion that creation is *actually* paramount, and develops from this a joyful system in thought. This learning is quite material, and highly sensible, not least for the learners involved. There is no question, as some of Deleuze's critics have suggested, of a retreat into a virtual Otherworld, because we are not the observers of life in some post-modern, spectacular drama but genetically part of the world, which is always moving, always reasserting itself, not as an object, an end or even a means, but as a continuous process, churning out new sensations. Here, learning is not lifelong, lifewide or even a livelihood, but life itself, and, until we grasp this, we will never do more than skim its surface.

Surprisingly, perhaps, writers on learning often present creativity very differently, as an object or state to be attained or to invest in. But can we can really learn to be creative, just as we learn a profession? Can we choose to be creative, as we choose to get up in the morning? This is a very convenient way of looking at things – especially for those involved in the industry of lifelong learning, where creative learning is just

another product to be farmed. The cynicism of this approach is exposed by Deleuze's work, and is not (just) concerned with the metaphysical question of whether life is a process or not. Beyond such arguments, if Deleuze's work is essentially anything, it is essentially ethical, because it is concerned with how we live, how to be worthy of things, not least creativity. So, as a teacher, educator and lifelong learner, I want to highlight the pragmatic side of a philosopher whose constant talk of tools and tool boxes, machines and assemblages, *bricolage* and experimentation with "what works" deserves more than passing attention because it is ethically important for a sector which is currently being drained of ethical content. In this book, I want to bring out these implications for the benefit of lifelong learning, offering a range of practices, attitudes and approaches with which to face the complex world of learning and the ethical questions it poses for all those who wish to actually *live* it. I want to show that our link with the world, as Deleuze suggests, must be thought, because it is through being affected by its materiality that we are able to think at all:

> Which then, is the subtle way out? To believe, not in a different world, but in a link between man and the world, in love or life, to believe in this as the impossible, the unthinkable, which nonetheless cannot but be thought? (Deleuze, 2005b, p. 164)

Acknowledgements

Introduction: Deleuze and Lifelong Learning

This book is about lifelong learning and creativity, about which so many clichés and commonplaces exist that a challenging perspective is needed to shed any light on what everyone already seems to know. We need the (im)modesty of the fool to do this, to foolishly assert that we do not know. French philosopher Gilles Deleuze's work proclaims this foolishness, and, although its contribution to learning is being increasingly examined by educators, the implications and effects of his concepts on lifelong learning are less well understood. It is perhaps because of its complexity that Deleuze's work is still less well known to us than it deserves, despite an upsurge in interest since his death in 1995 and the new directions that his work promises. Yet Inna Semetsky, for one, has argued that an investigation of Deleuze's "legacy" for education is "imperative" and "paramount", largely because of its creative potential. Following Deleuze, it is pedagogy, she argues, that must educate us "in becoming able to feel, to know, and to conceive: that is to create concepts" (Semetsky, 2008a, pp. vii–viii). Deleuze and Guattari describe these concepts as bricks: material blocks of sensations which can be used in many ways, but they are perhaps best used for breaking windows, allowing us to take a look outside.

Deciding to throw a brick through a window doesn't just happen: decisions imply complex assemblages of cause and effect. But, for Deleuze, life does not have to be lived on the calculated basis of needs and ends, but, rather, on that of production, productivity and potency. He gives the example of the grey butterfly that is able to use its singular essence as camouflage. It is not (just) the surprising fact of evolution, but the way in which the butterfly's ability to hide on a stone wall sets in motion the singularity of other events. The butterfly does not actually move, but, by simply hiding, it actualizes the event of being hidden and thus expresses

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its own particular ethology. This particular actualization of "to hide" is not the only one: other butterflies successfully use other means, a fact to which the grey butterfly's particular selection draws our attention as an expression of the infinite variation immanent to events (Deleuze, 2004b, pp. 204–205).

What does this have to do with lifelong learning? It seems to me that a central advantage of Deleuze's work to educators is that it provides a means of making the familiar unfamiliar and countering received notions in creative, often uncomfortable, ways. He does not offer quick fixes:

> Deleuze and Guattari do not offer a philosophy of fixing, categorizing, or ordering things, no recipe for how to think about things, but a philosophy that encourages readers to apply a style of thought to new areas. When the toolbox is in action, it creates machines that can open up conventional ways of thinking. (Kuppers, 2009, p.223)

This does not make it any the less relevant. Because Deleuze's work is directly concerned with creative processes *per se,* his focus on creativity as a feature of ontological difference is urgently needed if we agree with Stronach and Clarke (2011) that the ability to repeat is useless in today's complex educational world of rapid change. Certainly, for Deleuze, the variation which marks the living characteristics of experience implies a need not just for creativity but for the ethical stance which accompanies it. For Deleuze, the belief that fixed forms reproduce transcendent systems in thought is simply unethical because it can never produce a better world. On the contrary,

> [t]he best of all possible worlds is not the one that reproduces the eternal, but the one in which new creations are produced, the one with a capacity for innovation and creativity. (Deleuze, 1993, p. 89)[1]

The extent to which Deleuze can actually renew these aspects of philosophical thought by treating its concepts explicitly as living phenomena, like narrative or literary characters, rather than historical or canonical objects, deserves investigation. But, rather than impose philosophy on lifelong learning, such an investigation could start with Deleuze's insistence that other disciplines do not need philosophers to tell them how to think, and that practitioners often speak best about what they do. This is suggestive and encouraging, and four aspects of his claims are worth underlining here for educators looking to learn from and with Deleuze.

First, Deleuze's views on the necessity of thinking differently and crea-tively are particularly explicit. He overtly uses critical analyses which might be compared with Foucault's only as a stage on the way to a consideration of dynamic thought as a much more significant concern. Similarly, Deleuze is keen to point out the dynamism in the ideas of other thinkers, notably Foucault (e.g. Deleuze, 1990/2003, p. 240), whose analysis concerns structures that have already declined and that were in any case short-lived. The point of Foucault's elusive genealogy is, therefore, not to provide fixed frames of reference with which to analyse phenomena, but to point out their working so that we might think differently in future: not to tell us who we are, but to describe what we are no longer, or, rather, what we are in the process of becoming (Smith, 1998, p. 265). As Foucault himself pointed out, however, Deleuze and Guattari were less interested in the genealogical questions of *why* than in the ethical matter of *how* to proceed (Foucault, in Deleuze and Guattari (2004, p. xiv)). From the point of view of teacher educators, this shift of emphasis warrants attention.

Second, Deleuze's claims to appraise and provide examples of crea-tive thought and activity in this way are interwoven with pedagogical concerns, which often play a key part. Texts such as *Difference and Repetition* (Deleuze, 2004a) are therefore worth examining for their specifically educational potential.

Third, although apparently apposite, these aspects of Deleuze's thought acquire special significance in the context of his claim that they are part of an ethical practice. Deleuze claims to be able to draw ethical conclusions from his philosophy of events (Deleuze, 1969; 1988b and *passim*) which, although overtly based in his readings of Spinoza and Nietzsche, single out his thought as particularly ambitious. The ambition of this book is to offer an ethics of practice through what Deleuze terms "counter-ac-tualization", working through a transformation of ethics into ethology, or a new engagement with the multiple practices and events of lifelong learning. To achieve this, like Joe Hughes (2008), I want to acknowledge the coherence across the full range of Deleuze's published texts rather than restrict analysis to the better-known work, albeit to make a different point. It is true that some texts, for instance his work on Proust (Deleuze, 1964), on Bacon (1981/2004c) or on cinema (1983/2005a; 1985/2005b), are concerned with creativity in artistic practices more explicitly than others. However, his work as a whole repeatedly raises the question of creativity and consequently can be treated as a development of a single set of arguments, albeit according to the different periods in which he worked. Arguably the most comprehensive treatment of creativity can

be found in his earlier work *Difference and Repetition* (1968/2004a), and Deleuze himself claims that everything written since is connected to it (Deleuze, 2004a, p. xiii). However, as Antonioli (1999, p. 7) points out, even the early monographs on other thinkers and writers – especially Bergson, Nietzsche and Spinoza, but also Proust and Sacher-Masoch – are essential to understanding Deleuze's thought. The internal cohesion of the *oeuvre* is "always striking" (Williams, 2000, p. 219).

The final feature of this corpus that I want to stress is its relevance to lifelong learning. Jean-Clet Martin (2012) has argued that Deleuze's ideas cannot be understood in teleological or even chronological terms, and yet Deleuze repeatedly claims that the concepts he develops are both original and for practical use. If we take Deleuze's conceptual devices literally – and we would be making a big mistake to treat them as metaphors – his *bricolage*, war machines, tool boxes, patchworks, zigzag lines and folds seem tailor-made for the complex world of life-long learning today, making the familiar strange as a step towards crea-tivity (Jeanes and De Cock, 2005).This literalness means that it's not a matter of subsuming one more discipline into philosophy, but, rather, highlighting what Deleuze understands as the autopoietic forces and rhythms present in works of art and their importance in everyday life. And the relationship between self-organization and the different mate-rials used by artists, from paint to stone, and especially to sound, invites the fundamentally ethical question of how to live our daily lives:

> For there is no other aesthetic problem than that of the insertion of art into everyday life. The more our daily life appears standardized, stereotyped and subject to an accelerated reproduction of objects of consumption, the more art must be injected into it in order to extract from it that little difference which plays simultaneously between other levels of repetition. (Deleuze, 2004a, p. 365)

Educators should note, though, that Deleuze's objections to consumption are not political, but philosophical, and his analysis of socio-economic reproduction is an implication of metaphysics of difference and repetition rather than an *a priori* stance on a commonly criticized problem (see, for example, Jones, 2010). Current economic and political circumstances make this especially relevant, because classical capitalism, based in the physical world of space and production, is increasingly rendered irrelevant by a metaphysical counterpart concerned with time and the process of self-real-ization instead. Fuelled by the inequivalence and disequilibrium of "proc-essual heterogeneous life" (Lash, 2007, p. 12; cf. Fenwick, 2013) rather than

the equivalence and equilibrium of concrete matter, capital can occupy processes – such as creativity – rather than their products.

Deleuze and Guattari's attraction to hybridity and interdisciplinarity attempts to provide tools for analysing these processes effectively and affectively. Their view of artistic creativity reflects this: art is not an object to be "used" but a machine to be plugged into in order to create new worlds. Rather than repetitive mimesis, aesthetics for Deleuze is about effects (Crowley, 2013). It comes as no surprise, therefore, to see that cinema's novel incorporation of image and sound plays a key part in Deleuze's later work, where he argues that cinema's "movement" and "time" images have so much to say to and about creative thought, notably through their effects. Indeed, we can, with these practices, think material creativity in ways that make subjectivist points of view seem mystical and vacuous. This is why creativity is presented as a sober, artisan practice rather than as God-like creation *ex nihilo*:

> To be an artisan and no longer an artist, creator or founder, is the only way to become cosmic, to leave the milieus and the earth behind. The invocation of the cosmos does not at all operate as a metaphor; on the contrary, the operation is an effective one, from the moment the artist connects a material with forces of consistency or consolidation. (Deleuze and Guattari, 2004b, p. 380)

The critical analyses here, and the practical suggestions for developments in teaching and learning, should be understood as part of this reassertion of a very different set of values for lifelong learning – and, indeed, their re-evaluation. And so, rather than start by talking *about* Deleuze's work, I'd like to think *with* Deleuze about some of the concepts which form the basis of this book. What do we mean by lifelong learning, and how does creativity fit into this world?

I try to answer this question in three parts.

In Part I, *Lifelong Learning*, I take a critical look at the sector and approaches to creativity in and for those within it. Generalizing about such a diverse, global phenomenon is a risky business, but I want to position teacher educators as central to this analysis: as lifelong learners themselves, they are the mediators of policy and practice, digesting and modelling ways of understanding, acting and being in a wide range of settings. Chapter 1 briefly describes the sector's complexity from the perspective of its logic, goals and shifting nature, before examining what is meant by creative learning in Chapter 2. Here, I look at the extent to which we can speak meaningfully about creative processes in

this context, sketching out some of the salient different ways of understanding creativity in education. Chapter 3 focuses more closely on creativity in lifelong learning, drawing challenging critical conclusions about its role. This theoretical work is important, because it tries to show that many of the myths and commonplaces about creativity are just that: they distort creativity by relating it to objects and practices that have lost their grip on the material world of practice and emergence. My first goal, therefore, is to wrest lifelong learning from the straitjacket of ideas that fail to take account of the material stuff of a creativity which operates to actually bring new things about. Lifelong learners deserve this theoretical framework, a set of ideas and a toolbox of terms to engage effectively with their changing world rather than simply reproduce it.

This is clearly not enough, though, and Part II, *Events*, reconceptualizes creativity for the sector. Chapters 4 and 5 develop this analysis into an alternative, "operative" model of creativity, highlighting creative practices that show how creativity can work effectively. Teaching would be an obvious source of examples here, but the field of lifelong learning is problematic from this point of view, because talking of creativity without reproducing commonplaces is difficult. Increasingly codified by legislation on the one hand and by peers recruited by the ubiquitous mechanisms of self-surveillance on the other, creativity in teaching risks becoming a devalued currency, a mere means of exchange. In countering this, Deleuze turns to aesthetic practices for evidence of creation, and in particular to cinema, which provides a "shock to thought", making us think the new. Of the many possible genres, types and film makers, Deleuze looks to Italian neo-realism: De Sica, Rossellini, Visconti and the generations they continue to influence are an example of this shock. Among these, I want to show how the films and creative practices of acclaimed director Michelangelo Antonioni (1912–2007) extend beyond their own aesthetic pretensions and can contribute to creative teaching and learning practices. I draw on Deleuze's ideas about how creative "stutters" and "interstices" function, and provide a concrete set of ways with which to think about creativity in lifelong learning as more than just a discourse. Simon O'Sullivan (2009) has talked of the way in which improvisation, chance and error are central to creation, and I want to investigate how they might work for lifelong learners. What does it mean to teach and learn through improvisation? What role might chance play in learning, and how can it lift learning processes out of the repetitive and into the sorts of difference that make a difference? What do we do with error, and how might it be used in learning situations beyond simply lumping the undesirable, the misconceived or the inappropriate under its umbrella?

I tackle these issues in Part III, *Ethics*. I argue that lifelong learning raises important problems, but that these are problems in the Deleuzian sense that they exceed their solutions. They will not be "solved", but, rather, connected to other problems, generating further entanglements of practice and a more powerfully populous world of learning. A particular corner of this tangled world is the area of ethics, which is an increasingly important part of a newly moralized lifelong learning world – as I have argued elsewhere (Beighton, 2014). But, unlike the standardization demanded of the sector, in the UK at least, creative practices defined and justified by a richly optimistic and processual view of the world imply a form of ethics that cannot be reduced to the moralistic discourse to which lifelong learning, in many areas, is subjected. So how might creative practices actually embody a new ethical perspective on lifelong learning which makes sense to its practitioners?

My conclusions situate these practices as counter-actualization as a vital, ethical way of learning and being, in order to offer such an ethic of teacher education practice. To do so, I respond to Deleuze's bold assertion that "[i]t is from 'learning', not from knowledge, that the transcendental conditions of thought must be drawn" (Deleuze, 2004a, p. 206), attempting to draw viable conclusions from this position. Examining Deleuze's elusive statements about learning, thought and ethical behaviour, I want to develop an ambitious re-statement of ethical practice which aims to better relate to practices of lifelong learning, and their creative potential, for all those involved in them.

This perspective on a creative life is clearly inspired by Nietzsche's view that becoming what we are is an unruly process strewn with unpredictability and error:

> That one becomes what one is presupposes that one does not have the remotest idea *what* one is. From this point of view even the blunders of life – the temporary sidepaths and wrong turnings, the delays, the "modesties", the seriousness squandered on tasks which lie outside *the* task – have their own meaning and value. (Nietzsche, 1992, p. 34)

The stakes of such a change are high. Only when thought is free, and hence vital, Deleuze asserts that "nothing is compromised", and when it stops being free, he says, "all other oppressions are also possible" (Deleuze, 1988a, p. 4).

Part I
Lifelong Learning

1
Logics of Lifelong Learning

In his well-known "Postscript to Societies of Control", Gilles Deleuze predicted that continual training would increasingly be deployed as a form of über-surveillance on a bureaucratic model:

> One can envisage education becoming less and less a closed site differentiated from the workplace as another closed site, but both disappearing and giving way to frightful continual training, to continual monitoring of worker-schoolkids or bureaucrat-students.
>
> (Deleuze, 1990/2003, p. 237 / 1995, p. 175)

Deleuze's prediction concerns trends in lifelong learning, the vehicle by which lifelong learners engage in the development of their own economic, social and human capital. Like the regular critiques of the "Orwellian" language of education management (e.g. Nuffield, 2009) a "persistent hegemony" of individualistic, reductivist divisiveness in the neoliberal discourse has been identified (Evans, 2014, p. 46; see also Tuomisto, 2005). On this view, the importance of many, if not most, of these trends lies in the fact that they are integral to global factors and are best described as "movements or impulses", which are "dynamic, complex, messy, even paradoxical" (Waite, 2014, p. 298; see also Briggs, 2005; Fenwick and Edwards, 2011; Guttorm, 2012). This is crucial for those who, like Gregoriou (2008, p. 102), draw on Deleuze's views to argue that, for all its creativity, lifelong learning risks being subsumed by the demands of a globalized, dehumanizing market model. "The rhizomatic structure of lifelong training", she claims, "is actually reterritorializing itself around the forces of market economy" and the "post-utopian need of employability", which is its necessary supplement. For Mats Alvesson (2013), learning society organizations are riddled with

the grandiose pomposity of their own pointless rush to consume and be consumed. When the development of children is no more than a homologue to the development of the nation as a competitor in a global knowledge economy, as Maja Plum (2014) wryly says, is this the future of education and training for everyone? Is the resulting continuous change simply a case of unmanageable chaos (Gravells and Wallace, 2013, p. 22), or does it perpetuate a "system of quasi-enslavement", as Gerald Raunig claims (2013, pp. 31–32)? In this system, creativity expresses the despotic norm of the unceasing, infantilizing recommencement of self-discipline (Raunig, 2013, p. 102).

Criticisms of the sector's instrumentalization for the purposes of social control are common, but their pessimism clashes with those who see lifelong learning as the benevolent substructure of a better, fairer, learning society. Control is recognized as an "agenda", but only insofar as it competes with others, from employability and empowerment to access and inclusion (Spenceley, 2014, p. 107; see also Smith, 2001; Trotman and Kop, 2009). High levels of uncertainty and "new policy narratives" are used to justify the view that (UK) lifelong learning's contribution to a wide range of social issues should be maximized (NIACE, 2013, p. 3). This "lifewide" reach of the sector was evocatively summed up in 1972 by Edgar Faure, whose United Nations Educational, Scientific and Cultural Organization (UNESCO) report, *Learning to Be*, claimed, for example, that without lifelong education one "never does become an adult", and that one is "obliged to learn ceaselessly in order to survive and evolve" (Faure, 1972, p. 157). Equally ambitious are the many attempts to establish Lifelong Learning as a tool of social cohesion, often in response to increasingly rapid socio-political change. Influential post-war thinkers of a "learning society" included Torsten Husén (1974; 1986), Donald Schön (1973) and Robert. M. Hutchins (1970), who argued that two convergent facts imply the need for a learning society. Rapid change, he felt, requires continuous education, while the increase in the availability of free time makes such education possible. Delors' UNESCO report (1996) reflected this overarching perspective, arguing that lifelong education involved four different "pillars": learning to know, learning to do, learning to be, and learning to live and participate in a democratic knowledge society. As UNESCO continues to enthuse about learning as more than a vehicle of economic utilitarianism (Sobhi and Cougouroux, 2013, p. 4), the Organization for Economic Cooperation and Development (OECD) Teaching and Learning International Survey drives home the message that teachers must not just prepare students for lifelong learning, but must become lifelong learners themselves (OECD, 2014, p. 5).

A culture of endless, turbulent change (cf. Edward *et al.*, 2007) is just one effect of this optimism, and it is an implicit critique of what some have long questioned as the "myth" of a learning society which is simply not happening (Hughes and Tight, 1995). This is, nonetheless, the new educational order, so sprawling as to seem promiscuous because it has always tried to embrace such a wide range of education, training and human resource objectives and organizations (Field, 2006, p. 32; see also Sargant, 1996; Worpole, 1996; Ranson, 1998; Tett, 2002; Scruton and Ferguson, 2014, etc.). Moreover, if the recent enhancement of global mobility, living and working across frontiers, is an increasingly consensual 21st-century policy goal, it cannot fail to remind us of the link between lifelong learning and "the American dream of success and prosperity" (Tate *et al.*, 2011, p. 1). I have argued previously that this criticism is to a certain extent justified when the micro-practices of testing, streaming and categorization in the sector are examined (Beighton, 2013). For Terence Lee, it is matter of the state's desire to justify and perpetuate itself by colonizing and manipulating an ever wider net of practices and events: it is "by collapsing the fields of cultural possibilities", he pithily comments, that "the state validates itself as the most determining influence over most aesthetic, creative and culture practices" (Lee, 2014, p. 7).

On this view, lifelong learning is more than a training programme: it is, instead, a cultural, biological, economic and moral imperative. Compensating for the neoliberal destruction of the social with dreams of empowerment, it offers wealth and possessions to "anyone who gets it 'right' " (Brunila and Siivonen, 2014, p. 12). "Getting it right" in lifelong learning includes recognizing – or confessing – the poor levels of skills (for example in literacy) which have often been used to support a broad international consensus that a "population with this level of skills can hardly be expected to adapt rapidly and respond innovatively to the ongoing structural changes" (OECD, 2007, p. 9).

There is another recurrent and troubling theme here. Learners are constructed as children or patients by a never-ending cycle of demands: as John Ohliger was already arguing in the 1970s, mandatory continued education, over-certification and increased surveillance are there to make one feel irremediably inadequate (Grace and Rocco, 2009, p. 48). The kind of skills demanded is, of course, changing in line with (for example) technological development. Instead of a deficit of the "basic" or "functional" skills in (digital) literacy, numeracy or technology use, it is increasingly recognized that "imagination, insight and ingenuity" are responsible for progress (Thomas, 2009, p. 21). More and more,

creativity is recognized as a form of capital, replacing material production as an economic driver (Carlile and Jordan, 2012, p. 27). A simple example is the way in which university fees in the UK have risen higher than in any other OECD country (Holmwood, 2014), leading to speculation that investment in learning may be the next financial bubble to burst as employers and other stakeholders withdraw when training costs exceed perceived benefit (cf. BIS, 2012c, p. 11). Capital, in its various forms, is crucial in lifelong learning, and, more than ever, needs a deficit to be filled, in this case by creative learning. This, perhaps, explains what Susan Wallace calls a model of "mutual damnation" in UK further education: the neoliberal economy needs the cyclical process by which the poor performance of individuals reflects back on the reputation of learning organizations, reducing the chances that high achievers will bother to engage in this part of the sector (Wallace, 2013, p. 25), fixing its reputation and that of those within it.

The importance of teacher education in supporting this trend is beyond doubt for Petty (in IfL, 2013, p. 27), for whom "[o]ur economy is irrigated by a well of knowledge and skills, and it is teacher trainers who have their hand on the pump". Petty's assertion raises interesting questions about the ways in which creativity is promoted and conceptualized in, by and for the sector's educators. Is there a conflict between the promotion of creativity, on the one hand, and an agenda of performativity and compliance, on the other? Does this presage a culture of surveillance and a lack of trust, or simply a preference for expedience over creative practice?

It's possible, in fact, that the state's basic logic is deregulatory and, seemingly paradoxically, anti-state, as its gaze increasingly amalgamates, penetrates and recruits the individual. Deregulation, in these conditions, is a sign of the state gathering strength (Žižek, 2009, p. 145), since the forms of deregulation that it espouses simply mean an increasingly omnipresent form of control, of which the current discourse of creativity is a key part. Here, freedom and control actually depend on each other in a double movement: freedom becomes the liberty to control oneself and one's productivity just as deregulation provides the discursive and ideological vehicle for self-regulation. On this view, libertarianism and hedonism are fully compatible with a Foucaultian dispositive or web of regulations and mechanisms (cf. Foucault, 1976/1997; Deleuze, 2003, pp. 316–325; Agamben, 2007). This "biopolitical" mass-management can seem just as invasive of learner and teacher professional autonomy as it is of their judgement. Identifying the exact relation between creativity and the mechanisms which seem to repress it might contribute

to an understanding of exactly what lifelong learning is becoming, and even the art of governance itself.

Recommended by decentralizing policy, changes are promoted on the grounds of enhanced quality and a better student experience, but are inseparable from a continued desire for lifelong learning to guarantee economic effectiveness and institutional accountability through increasingly detailed measurement of its own output. If this self-surveillance seems abstract, circular or even nihilistic, this is not by coincidence. On Deleuze and Guattari's analysis (1972, pp. 274–275), capital as such only exists once this step into abstraction has been taken. Capitalism, they assert, only comes into being when the flows of money in exchange for greater quantities of concrete commodities are supplanted by the differential operation of flows of money in exchange for greater quantities of abstract currency. This abstraction should come as no surprise for lifelong learners, who have long known that education is "is not a commodity like food" (Peters, 1970, p. 126). But the demand for knowledge workers increases "exponentially in the knowledge economy" (TLRP, 2009, p. 19), and the post-industrial emphasis has shifted towards a knowledge economy which considers learning precisely "as a commodity that can be sold or exchanged for goods" (Holme, 2004, p. 11). The related development of a compulsive data-farming economy in education confirms the purpose of the sector as a cultivator and manager of data about learning whose value only exists in its exchange relations with other sources of comparable data. In this context, the mutual benefits predicted from the assumed convergence of abstract knowledge and physical economy may be illusory and even counterproductive. Arguably a feature of a "society of the spectacle" where representations and simulacra have dislodged real experience as the stuff of everyday life, the collection of large amounts of data for the purposes of surveillance ("dataveillance" for Genosko and Bryx, 2005) is clearly a growing aspect of this economy. Practices of what we might term "affective exchange" are highly congenial to the cultivation and subsequent farming of data facilitated by a burgeoning virtual world of easy collection, storage, retrieval and even "breeding" of data (Fenwick and Edwards, 2011, p. 718). A suitable overarching term for the whole process might be "data grooming", with all that implies.

Events and lifelong learning

This appraisal of lifelong learning's goals highlights the need for a practical and theoretical perspective adequate to its differences and

complexity, and a suitable term can be found in Deleuze's concept of "event". The scope of an event is not representative, but, rather, creative, being defined by the problem it poses and the future it creates (Stengers, 2000, p. 67). The point here is that the concept might actually be necessary if we are to analyse the elusive world of lifelong learning and its differences. Burbules and Berk (1999) have argued that there is "something" about the preservation of such differences that yields new insights, and that this "something" is lost when the tension between differences is erased by a single perspective. Crucially, though, this "something" does not have to be vague or undecidable, but can be analysed and deployed to better explain what lifelong learning does, and can be defined as the "event" of lifelong learning.

"Event" here is used to highlight the importance of ontological variance in the complex education world. Here, diversity is not just the result of multiple perspectives, but, rather, an indication that that we participate in multiple worlds which "coexist and overlap, patched together in the same material spaces" (Fenwick and Edwards, 2011, p. 710). The structure of events, or "the contingent encounter of affects and percepts" (Olkowski, 2011, p. 127), describes this participation well, drawing attention away from the limitations of seeing the sector either as an object to be manipulated, or as a purely discursive phenomenon to be discussed, or even as an administrative metaphor to be dismissed. I discuss in more detail later what this implies, but an event in this context can be defined as an emergent structure whose complex relations indicate a definite internal dynamism which is essential to it. It is, perhaps, unhelpful to state that events are only significant if they have meaning or sense for us, but even this sense can, and often does, have an "infra-sensible" aspect (Zarifian, 2001, p. 92), that is to say "deeper than the question of the emergence of meaning". Because of this infra-sensible depth, an event embodies dynamic change which relates events to what they are becoming rather than what they are. It is the event's relation with its own outside, not its unity, that is particularly interesting.

Choice and lifelong learning

So events are, provisionally at least, choosing to have more choices (Lawlor, 2008) and denying the exclusion of options implicit in any choice. They insist that change is not teleological but creative and emergent, and that change is "evasive to mechanical explanations" (Olma and Koukouzelis, 2007, p. 7) and therefore to anticipation (Roth and Lee, 2007, p. 202). This reminds us of the constant, pragmatic need for

more choices, not fewer, and for ways of actually dealing with change which do not reduce it to *this* change.

This might seem an impossible aim. Certainly, if education generally is increasingly described as complex, this implies the need to recognize the role of self-organization, and the dynamism it requires. This implication is not in itself an innovation: for example, Maurice Merleau-Ponty claimed that the philosophy of such objects "is collapsing before our eyes", since natural objects have disappeared. Discoveries in physics have recognized this, and it demands a recasting or reshaping of things (Merleau-Ponty, 1962, p. 56). More recently a number of thinkers have argued that quantum theory justifies a more materialist form of realism (see, for example, Latour, 2005; Barad, 2007; Brassier, 2007a; 2011; Bryant, 2011b), but lifelong learners in particular need to do more than simply proclaim a new constructivism by vaguely asserting that people and things interact in some undefined way. Henri Bergson (1907/2013, pp. 8, 20) also argued that our tendency to mechanize is based on a fundamentally false appraisal of the objects of perception. The impact of this on creativity is profound, shifting our focus from space and objects to time and processes. In fact, in the historical, emergent conditions of the present, there is "no reason for us to talk of 'being' any more" (Debaise, 2012, p. 44; see also Delanda, 2002; 2006; Linstead and Mullarkey, 2003; Marcus and Saka, 2006; Radford, 2007; Osberg *et al.*, 2008; Fenwick, 2012a). Laplace's demon, who could predict the ends of any action given sufficient data about initial conditions, is deprived of precisely this data, and therefore cannot predict outcomes from it. The "baker's transformation" is perhaps the most commonly used example of the way in which phenomena complexify over time by successive foldings. This complication produces situations whose point of departure cannot be identified from current conditions and whose end point cannot be anticipated without generalizing. According to this principle, the initial conditions of a piece of dough, kneaded many times, cannot be determined by examining its current state. Any properly complex system, by implication, is not just open to change over time but unpredictable as a result.

Time and lifelong learning

Williams' (2013) discussion of different conceptions of the event in Lyotard and Deleuze and Guattari helps highlight the ethical portent of this abstraction. In times of economic crisis, the increasingly intense circulation of money (hyperinflation) implies an acceleration of time

itself, forcing a physical response from bodies which run ever faster to allay the collapse of financial value and livelihood. The wider ethical question raised by Williams concerns the implications of this for our possibilities of action. For Lyotard, the event of acceleration leads head-long into a labyrinth with no exit point (*fuite en avant*) and, ultimately, death. For Deleuze, on the other hand, lines of flight (*lignes de fuite*) constitute events genetically. They multiply exit points synthetically in an open system that "cracks" or "unhinges" time, introducing new series. Lifelong learning practitioners, too, are "running ever faster" for Coffield (2006; see also Coffield and Edward, 2009), and so determining events and what creativity is possible within them is the key ethical question facing the sector.

If we are to take this logic of complex relations and events seriously, our analyses of dynamic phenomena need to situate this dynamism at the heart of a system like lifelong learning, rather than simply attributing it to a given idea. This is because forces in open systems do not work on static objects, but, rather, accelerate, decelerate or inflect bodies already in move-ment. This implies that a virtual dynamism exists beyond these forces of change which bodies impose on each other. It also correlates with the properties of complex open systems, where actual relations of power are the realizations of virtual properties (Roberts, 2012, p. 37). For example, interesting relations obtain between concrete "things" and the "spectral effects" which Roberts describes in these systems. Echoing Lash's descrip-tion of an increasingly immaterial economy, things such as brands and product images do not just supplant the more concrete aspects of prod-ucts in real ways, but also play an important, even defining, role in our interaction with them. As contemporary lifelong learning is increasingly influenced by the abstract operations of capital (the flows of investment, student numbers and certification progression which exist to manage latent pools of labour, for instance), these "spectral effects" become increasingly important as the actualizations of capital's ideal operation.

Applying this logic of relations to the sector as whole locates lifelong learning as just such an open system. It also implies that emergent life-long learning organizations actually embody problems which demand greater creativity. This is because (by definition) the emergent attributes of a complex series of factors cannot be extrapolated from past performance. Moreover, if lifelong learning is to be defined in this way, implications can already be drawn about the ways these impossibilities can help us better understand and develop creative practices in the sector. Both research and practices capable of unravelling these strands are necessary.

2
Creativity

The idea of creativity generally has met with a sort of cyclical consensus in education: "Everyone likes it", one researcher drily remarks, "[h]urrah for creativity" (Gibson, 2005, p. 1). Such irony underpins a sincere concern for the disparate and exploitative ways in which creativity is used, not least in educational contexts. As a "rising economic profit zone", creativity's expansion is "grotesque" as it encompasses so many disparate fields (Raunig, 2013, p. 109). It starts early, too, as children's creative development is seen as a stage on the road to employment after school (McClellan *et al.*, 2012). But it is also increasingly important to lifelong education, reflecting recent international and national policy, as Stéphan Vincent-Lancrin, senior analyst and project leader of the OECD's Directorate for Education, states:

> An increasing number of countries see fostering of creativity and critical thinking as the next educational challenge: traditional good grades may no longer suffice to equip the workforce with the skills needed to fuel innovation-driven economic growth.
>
> (Vincent-Lancrin, 2013)

The OECD has long promoted the view that that innovation is "the main driver of economic progress and well-being" (OECD, 2007b, p. 3), and this global perspective echoes through national policy. Creative education is seen as central to the wider development of attitudes and skills required by the flexible, adaptable employees and consumers in a knowledge economy, blurring notions such as productivity, innovation, adaptation and change. Creative teaching guru Ken Robinson (2006; 2010) has frequently articulated two key issues around the link between creativity and learning. First, our ideas about social organization must

reflect the fact that predicting the future is increasingly difficult. Second, ageing populations face more risk, more diversity, more relocation and more change over longer periods of time. Few professionals feel prepared by initial training for the unpredictability of these complex changes (Fenwick, 2012b), but educators have a professional and personal responsibility to mediate a 21st-century crisis which is only now beginning (Stronach and Clarke, 2011). This is one reason why UK teacher education qualifications, for example, now require a greater focus on "investigating pedagogical principles and innovative and creative approaches" (LSIS, 2013, p. 14). Professionals should, of course, have "creative new ideas" (BIS, 2012d, p. 34), but they should also be "creative developers of curriculum and innovative pedagogues" (Sachs, 2007, p. 15; see also Sachs, 2000). Unsurprisingly, the sector's new employer-led professional body in the UK, the Education and Training foundation (ETF), has developed a new set of professional standards which clearly state that teachers should "[b]e creative and innovative in selecting and adapting strategies to help learners to learn" (Education and Training Foundation, 2014b, p. 2).

Creativity, it seems, is the answer, but what is the question? What is the exact nature of the "creativity" promoted by the sector, how likely it is to enhance practice, and what deeper problems and ethical issues are raised for practitioners?

What is creativity?

As interest in creativity grows and expands into new areas, so the phenomenon and the term become more elusive, and attempts to critically define creativity in specifically educational contexts proliferate. Bleakley (2004) criticizes the attempt to reify creativity into a "singular" concept, and Banaji *et al.* (2006, p. 3) name "at least nine" definitions; Bleakley himself accounts for ten different types, and Treffinger *et al.* (2002) claim to identify literally hundreds. This proliferation helps explain the ubiquity of creative discourses in domains that can seem to trivialize it, as adult educator Raymond Williams notes:

> The difficulty [with creativity] arises when a word once intended, and often still intended, to embody a high and serious claim, becomes so conventional, as a description of certain general kinds of activity, that it is applied to practices for which, in the absence of the convention, nobody would think of making such claims.
>
> (Williams, 1976, p. 84)

Clearly, poor definitions are as unhelpful as perceptions among educators, learners or parents that creative learning involves pointless "messing about" (Compton, 2010, p. 35). Yet, in defining the term, it must be recognized that interest in creativity itself is, of course, far from new, and can be traced to Augustinian concepts of divine Creation and our status as Creatures of God. The creature cannot create (*creatura non potest creare*) simply because to do so would be to arrogate divine power itself: creation is uncreaturely. This neo-Platonic religious censoriousness *vis-à-vis* creation echoes through myths which continue to underscore an enduringly ambiguous relationship between the idea of creativity as a cultural (and educational) phenomenon and questions of power. This is one reason for Nietzsche's contradiction of a religious view:

> In man, creature and creator are united: in man there is matter, fragment, excess, clay, mud, madness, chaos; but in man there is also creator, sculptor, the hardness of the hammer, the divine spectator and the seventh day.
>
> (Nietzsche, 1990, p. 155)

Nietzsche's terse and epigrammatic style introduces a view of creativity which radically undermines the view of the creature as subject to transcendent creative powers. His linking of creativity and material forces, and the assertion that the creature is not separate from creation, will be taken up later, but connecting creativity with revolt and freedom in this way is a *leitmotiv* of the western philosophical tradition. Aristotle, for example, believed that all great minds are near to madness; Schopenhauer felt that creative genius meant an inability to tackle worldly affairs; and Kierkegaard believed that rebellious genius creates because/when it challenges the norm. Runco (2007), however, warns us that clichés about creativity (e.g. the mad genius at work) may not help discussions of creativity to the extent that they neither show an intention to create, nor provide a useful model of creative activity. Such notions of genius are "elitist and old fashioned" for Carlile and Jordan (2012, p. 12), and, *in fine*, creativity needs to be treated carefully if it is to do more than simply describe a phenomenon which we assume to be given.

Moving away from religious and philosophical concerns, the mid-20th century saw an upsurge in interest in creativity among educators (Sternberg, 2003, p. 3). This growth can be linked to other post-war socio-cultural trends in mass production, mass consumption and a related homogenization in lifestyles, indicating that the popularity of the concept and the ways it is described and promoted owe something

to this trend. An implicit relation between creativity and the quality of such production may help explain why, since J.P. Guilford's influential 1950 address to the American Psychological Association expressed the need for research into creativity (Cropley, 2001, p. 1), interest in creative education has grown. The term is thus anchored in a political context (i.e. the Cold War) and the competitively instrumental goals of the space race. This, Cropley argues, has fuelled the "human capital approach" to creativity, despite the "inherently paradoxical" nature of such a managerial view (Cropley, 2001, p. 5). With this growth came variety: thinkers of the post-war boom included E. Paul Torrance, "the father of creativity" (Gruber, 2000, p. viii), for whom creativity was "the process of sensing problems or gaps in information, forming ideas of hypotheses, testing, and modifying these hypotheses, and communicating the results" (Stouffer *et al.*, 2004, p. 1). On this view, the creative process may lead to both concrete and abstract products, but also involves communication through, for example, works of art, inventions and medical discoveries. For Torrance himself, creativity's future lay in the hands of "prophets" and "frontier thinkers" rather than critics (Torrance, 1995, p. 5).

More recent definitions, nonetheless, equate creativity with individual thought and its results, albeit on widely differing scales. In the specific domain of lifelong learning teacher education, creativity has been taken to be basically inseparable from introspection (James, 1999). At the other end of the scale, Takeuchi *et al.* (2011) give the concept a broad historical *telos*, asserting that creativity has been essential to the development of human civilization and, thus, the whole range of collective human endeavour. Despite these different accounts, both Takeuchi *et al.* and James imply an ethical dimension to creativity, which must fulfil a more or less conscious goal of improvement. This view is reflected in Sternberg's influential definition of creativity as "the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints)" (Sternberg, 2003, p. 3). For Sternberg, the unexpected nature of creativity is placed in tension with its appropriateness, often gauged according to "the task in hand" rather than the development of new ideas or practices. This view has been very influential: Tan *et al.* (2007, p. 554), "emphatically propose" that future research in creativity should be of the "*use inspired basic* type", referring explicitly to one of their own (four) categories of creative work (original emphasis). Similarly, Compton (2010, p. 29) constructs a "pyramid" of four types of creative activity, ranging from "noticing behaviour" to "grand innovation" at the pinnacle. This top level involves "making

something new and valuable" and "working at the pinnacle", super-
seding the bottom level's inquisitive/explorative activity of "creating,
making". The value judgement of utility here is explicit, and any indi-
vidual activity of production is subsumed under the greater value of
social demand for output.

As Cropley (2001) reminds us, though, an interest in the products
of creativity can be an arbitrary measure of their importance: a given
social context may or may not recognize their value or originality.
Both these aspects of creativity discourse in education ("economy"
and "utility") channel a set of ethically charged values whose contin-
gency may be obscured by terminological and taxonomic wrangling.
"Pseudo- and quasi-creativity" have been proposed as ways to describe
the common confusion of both the repetitious variability of production
(pseudo-creativity) and the tenuous hold on reality of abstract thought
(for example, daydreams as quasi-creativity) with the production of
genuine novelty. For Runco (2007), simply being uninhibited, lucky or
different for the sake of it does not really constitute creative activity:
the latter must in some way result from intent, on this view, and is, in
essence, another form of human capital. Accepting that creativity plays
this role means that it becomes part of the globalized, networked market
framework (Craft, 2006). Lifelong learning, for David Lines (2008, p. 13),
is valued above all as a "training ground" for the "production, reproduc-
tion and transmission of knowledge" in the modern economy. It's easy
to see how this approach reflects the demands of marketing, advertise-
ment and an economy based in rapid (re)production and (re)distribution
of increasingly abstract or virtual goods and services. But the advantages
of creating not products, but spectral ephemera with short life-spans
and instant obsolescence, are increasingly questionable.

So, for critics with an eye to global trends, the relatively recent turn to
creativity has far-reaching implications for lifelong education, because
it underlines the way in which the latter is saturated by the terms, the
thinking and the practices of business and commercial production. Lines'
analysis points to a conflict between a view of creativity as an abstract
and ephemeral phenomenon and another, more concrete use to enhance
economic effectiveness: it "oils the virtual machine of creative capital"
(Lines, 2008, p. 132). This indicates an interesting problem in the way
creativity is often conceived. While some areas of the sector could claim
that their essential function is the engendering of creativity through tradi-
tionally and recognizably creative activities – art classes and other forms
of "liberal education", for instance – others might frame the need for
creativity within the delivery of training whose goals are limited by their

largely functional role in, for instance, the identification, codification and reproduction of skills in and for the workplace. Lifelong learning, increasingly, is expected to work in collaboration with (for) employers to provide "a clear line of sight to work" (CAVTL, 2013, p. 4).

Creativity, it would seem, is to be the handmaiden of the knowledge society. But this would be an inversion of actual relations for Deleuze and Guattari, who assert that a social field is defined "less by its conflicts and contradictions than by [creative] lines of flight running through it" (Deleuze and Guattari, 2004b, p. 100). They draw our attention to the fundamental role of creativity at work within these mutations, not changing or adapting to them but making them what they are. Learning and creativity themselves are not outcomes but interdependent features of this dynamic process. Learning involves more than the acquisition and manipulation of quanta of information, and is not, therefore, directly amenable to systems of exchange based on the transfer of these quanta as products of a "knowledge economy".

In fact, on this view learning might adequately be described as the accumulation of knowledge packaged in the form of terms. Indeed, for Deleuze it is the virtual properties of series of events that make them interesting, not their terms. The point is that the material world obeys a relational principle which links the voluntary and involuntary aspects of both learning and creativity. This helps us develop several helpful distinctions (between learning and acquisition, or "really useful" and "merely useful" knowledge, for example) and is, rather, an act of becoming which makes a difference by changing us and our world as we enter new series through encounters with new relations. So, if, like Pope, we define creativity as the capacity to "make, do or *become* something fresh and valuable" (in Carlile and Jordan, 2012, p. 8 – my emphasis), learning and creativity implicate each other. This multiplicity is not, however, how creativity has often been seen, and I'd like to suggest that brief review of the ways in which creativity has been discussed underlines the view that too often it is taken as a linear process subordinated to some other, higher, goal.

Types of creativity

Powerful stakeholders influence what is meant by creativity, and a degree of "conservatism" is expressed by the belief in a supra-individual notion of cultural or creative value. Creativity, where it exists, must correspond to accepted norms and serve an existing whole. Roger Scruton (in Banaji *et al.*, 2006, p. 8), for example, opposes notions of individual creative

potential as long as they claim to escape a larger societal paradigm. He defines creativity as art within a perspective which relies on a certain relation between practices situated in time: the artist sees their work as belonging to a pattern under which self-expression and personal interest are not valued because they fail to recognize previous successes. "Real" creativity here is assumed to operate on the terms of continuity, integration into a hierarchy, and attachment to a transcendent idea of greater society. Minority cultural interests must, therefore, remain minoritarian within this framework: once they integrate the whole they can no longer claim minoritarian status, since "minority" is defined as the variety of ways in which individuals and groups *fail* to conform to standards (Patton, 2007, p. 11).

More in line with this "open system" view, educators in a more "progressive" tradition have challenged the idea that creativity must reproduce the values of a hegemonic model. For Marshall (1963, p. 10 in Jones, 2009, p. 18), educational creativity lay in the relationship with works of art, which should be "tapped" because they are seen to represent "the inexhaustible well of past human experience".

Conservatives and progressives seem to share a belief that the value of creative art lies in its ability to represent a past or present which transcends the individual while maintaining a focus on the temporal. But any dependence on the notion of creativity as the (re)production of *past* conditions is a constraint if we see creativity as necessarily oriented towards the future. I think that the implications of this for a philosophy of events, grounded in a temporal scheme in which equivalence, by definition, can only exist when we subtract difference, are important to lifelong learning. They have a direct bearing on the role of creativity in defining values such as cultural diversity, and, I want to argue, are fundamental to a refreshed form of professional practice and ethics for the sector.

This focus on time is worth stressing. A neoliberal economy demands a subject who cannot be assumed to be simply passive, who speculates to accumulate. It has been argued that mass production is actually used, especially by the young, to define new ways of being which challenge high culture and homogenizing forces. But the capacity for "minorities" to create is also exploited as the "cutting edge" of voracious capital able to transform producer and consumer into its own instruments. As Harvey (2010) suggests, latent consumers become active producers, and active consumers actually constitute an ever-ready, ever-changing workforce which must now be capable of lifelong adaptability, echoing the analyses of flexible professionalism, whose compliance with wider

economic activity is downplayed. At bottom, an idealization of the cultural capacity to create misses the central issue of differentiating cultural production (difference) from cultural consumption (repetition) and merely invites educators to consume and be consumed (see, for example, hooks, 1992; Field, 1996; Bauman, 2007). In this totalizing system of knowledge, it becomes impossible to conceive of practices that might escape the reaches of "the vampiric topography of this continuous marketplace" (Colman, 2006, p. 3).

In this (twi)light, lifelong learning ultimately concerns the production of particular types of creativity in complicity with an inward-looking, spectacular and speculative social order. The ambivalence to and of this rhetoric lies in the fact that creativity is demanded by a teaching profession which does not actually foster it, preferring normalization for Anna Craft (in Durrant and Holden, 2006, p. 141), and, for some, a "tightening of an already established stranglehold" by policy (Kendall and Herrington, 2009, p. 47). This stranglehold may be more of a vice grip, though; on the one hand, productivity and (exchange) value, considered central to functional creativity, are subjected to a judgemental gaze which identifies creativity with the purposes of abstract speculation in selfhood, image and the commodification of virtual worlds. On the other hand, responses to change in education are reduced to individual practices of contesting, coping and complying with stringent performativity, which are unlikely to enhance teaching and learning (Simmons and Thompson, 2008, p. 614). Indeed, if on the wider social stage international organization implies heterogeneity of social formations and creates its own "third world" (Deleuze and Guattari, 2004b, p. 482), creativity on these terms serves the demand for cheap, unskilled labour (Deleuze and Guattari, 2004b, p. 406) by providing a technology for the adaptation of latent manpower which recreates itself to meet the demands of the market.

On this view, it may be no coincidence that expansive times bring belief in the benefits of creativity, whereas recessionary periods herald a retrenchment. Minds become sceptical as to the relevance of values which, visibly, fail to fulfil promises of prosperity and well-being. Education policy, in turn, swings cyclically between the advocacy of creativity (expansion) and its antithesis (retrenchment and "back to basics"). Despite claims to the contrary, this movement may have more to do with politico-economic cycles than factors such as educational need, research or theory. This can be seen in the way that creativity has become a standard term in UK lifelong learning political rhetoric, which

can be tracked, for example, to the 1998 Green Paper *The Learning Age: A New Renaissance for a New Britain*:

> We will succeed by transforming inventions into new wealth, just as we did a hundred years ago. But unlike then, everyone must have the opportunity to innovate and gain rewards – not just in research laboratories.
>
> (DfEE, 1998, pp. 9–10)

The importance of achieving this means that reconfiguring the further education (FE) sector as "subservient to the perceived needs of the economy" is a key policy goal (Simmons and Thompson, 2008, p. 609). This focus on the "rewards" of innovation has been expanded to a mission to create an "innovation nation" (DIUS, 2008), and today's department of Business, Innovation and Skills (BIS) repeatedly proclaims a special interest in the "creative industries" and "creative skills" necessary for economic growth. The production of knowledge in lifelong learning is a good example, with the increased importance of the "marketization agenda" in the sector, and the alignment of the latter with the demands of the former (cf. Lines, 2008; Newman and Jahdi, 2009; Skills Commission, 2010; BIS, 2011; 2012a; Vinson, in IfL, 2013).

"Newness" may be "stitched into the fabric" of industries based on knowledge (Cronin, 2008, p. 300), but not all forms of creativity are welcome in a business context keen to maximize short-term profits by avoiding the sorts of disorientation involved in genuine change. Moreover, while it is true that discussion in education tends to focus on the role of human agents (and their skills, abilities and motives) in these creative processes, for Munday (2012) this focus on human agency is still associated with productivity in education. Creativity, he argues, has become a question of performativity and human capital management as part of a productivist ethos which demands the development of organizational systems and structures where new ideas can be generated and managed. Human capital theory does not just misrecognize the complexity of economic development and the wide range of actors in economic growth (Fuller *et al*., 2004, p. 1), but repeats the "mantra of skills" criticized by Coffield (2008, p. 5) and is therefore subservient to normative economic interests and their dehumanizing need to develop human capital (Lines, 2008, p. 132).

This appropriation of creativity by the economic mechanisms of reproduction is why critics of this trend argue that instrumental creativity is "increasingly obtuse and over-commodified" (Salehi, 2008, p. 159). On

these terms, Salehi argues, creativity is little more than another instrument of consumption. Venues for consumption are manufactured, and creativity itself becomes "a consumable package" (Salehi, 2008, p. ii). The claim here approaches what Zepke (2007) identifies as "the old avant-gardist ambition of merging art and life". As Zepke argues, the problem in this view is not just (or even really) that the ambition is old, but that it is nowadays more and more achieved by manufacturing and consuming "commodified affects and subjectivities" in what he calls "cognitive-capitalism", or the marketization of subjectivity for institutional profit. James and Ashcroft (1999, p. 2), for example, argue that creativity exists not just to raise standards but also to rebuild confidence and rediscover autonomy, implying that inadequate standards, low confidence and a state of dependency were widespread among education professionals at the time of writing. Creativity, it would seem, is a way of restoring a lost ideal, but, in the light of criticisms of the economic focus of lifelong learning, it is at least possible that goals such as higher standards, greater confidence and stronger autonomy are valued only insofar as they bolster a symbiotic discourse of economic competitiveness dependent on the denunciation of current practices.

Following this institutional and affective trend, which reconceptualizes what is relevant and useful, technical descriptions of creativity are not always openly individualistic. For example, from the point of view of a business model, networked systems can foster more efficient forms of creativity. This has obvious advantages, including that of providing a framework in which creativity itself can be controlled, for example through the economies of scale which can be achieved when large numbers of employees work on the same thing. This implies the development, exploitation and redistribution of virtual space(s) for such forms of productivity afforded by communications technology. This itself provides a double gain, since the outputs of this form of activity can be easily managed by the same ICT tools that serve to interconnect their parts. In addition, the product of such creativity is itself highly cost-effective, requiring little or no material infrastructure, and no investment in or transformation of expensive raw materials, at least in theory.

The professionalization of creativity

This returns us to the perspective of lifelong learning, where an increased emphasis on change, innovation and increased productivity has been linked to the raising of professional standards – not to mention productivity and profitability – in this human capital model. It is arguably

on this terrain that such notions of creativity become most contestable from the point of view of lifelong learning: an economic rationale may justify some of the changes described above, but does it sustain the more effective training which today's critics of lifelong learning practices often demand?

Arguing that creativity *is* (*de facto*) is to take one step, but, as R.S. Peters (1970, p. 98) points out, even assuming that we are creative does not explain why this particular feature of human activity *should* be favoured (*de jure*) or promoted more than, say, a capacity to play bingo. Some claim that CPD enhances initial training by responding to new theories, ideas and models, thus preparing teachers "to be better and more effective lecturers" (Stiggers, in IfL, 2013, p. 15). Too often, what counts as creative is conflated with "interesting" or "new" simply for the teacher or the person assessing them, or confused with what is merely desirable. When institutionalized as continuing professional development, can creativity avoid being conflated with staff training as a process of "sheep dip" to meet the demands of the latest "big idea" (Scales, 2011/2012, p. 4)? This actually risks prescribing a fixed form of idealized professionalism which individualizes and reifies both teachers and learners as objects of technical intervention (Colley *et al.*, 2007). Far from improving quality, some claim, this boils down to finding cost-effective ways of maintaining control (Kingston, 2008), moving the debate away from thorny issues such as effectiveness or even *right*.

For Plowright and Barr (2012), the "professionalization" agenda in lifelong learning offers only criterion-based, skills-focused "training" which reduces professionalism to the performance of docility. This is particularly relevant to lifelong learning when human capital theories place the responsibility for creativity on the individual's investment in their own professional development through (mandatory) continuing professional development (CPD) in lifelong learning. When it does this, the "skills sector" does not only promote creativity as coterminous with productivity and adaptability to economic circumstances and roles, but also aims to develop the "attitudes and skills" needed to prepare learners to "take their place as flexible and adaptable employees and consumers in western capitalist societies", according to Simmons and Thompson (2008, p. 601). On this view, instead of providing flexibility, profession-alism and change, it is simply another example of practitioners having to adapt and compromise. Indeed, the whole notion of creativity becomes highly suspect if the state adopts precisely these means of capturing creative thought in order to measure and control it.

Another problem with creativity on these terms is that it risks becoming a technical activity, defined in terms of systems, categories and diagrams. Political issues of social value are imputed to the individual's willingness to upskill, and it becomes easy to see why Craft (2001) sees creativity as synonymous with the individual ability to cope with change.

Many disagree. Runco (2007, p. 386) lists several studies whose focus is the unpredictable, chaotic nature of creativity, and Treffinger *et al.* (2002) criticize creativity which assumes that creativity is an attribute of a "creative person". In their attempt to escape this limitation, they "mention", as an aside (*op. cit.*, p. x), Rhodes' four strands (the four Ps of Person, Process, Product and Press), and their own four-faceted model of interdependent factors stresses dynamism and complexity:

> Creative productivity is best described as a dynamic, complex system, in which all four components are interdependent. These components can either facilitate or inhibit one's expression of creativity in observable ways within any domain of human effort.
>
> (Treffinger *et al.*, 2002, p. x)

These references to complexity nonetheless atomize creativity from the point of view of an ideally productive individual. "Creative productivity", as they say, "is in action!" (Treffinger *et al.*, 2002, p. 70). The study repeatedly states that the aim of education is to develop "creatively productive" adults, aligning creativity with employability and education research with the productivist goals and apparatus of human resource management. Hence, such work vehicles several cultural stereotypes (for instance about the supposedly creative benefits of individualism and the necessity of productivity), which, it might be surmised, result from the context in which they are written rather than the wide-ranging intercultural perspective which globalization (for example) might require. Hence, the report is helpful in identifying the twin trend in education's creativity discourse, namely its references to complexity and agency. It helps to define not just a dominant position in the study of creativity, but also some of the weaknesses of this position. Three characteristics of this product-oriented creativity emerge:

1. Creativity is categorizable into four simple types in order that it can first be recognized and then, crucially, evaluated and measured in four performance levels.
2. It is essentially individualistic, with a component of social behaviour offering tangential interest.

3. It is defined by its productivity, its activity and its amenability to organized training.

This individualistic focus can also be seen in the kinds of reflective practice which arise from the desire to give scrutiny of one's own practice a principal role in creativity. It has been argued, for example by James (1999), that a specific form of professional creativity exists for the sector, which involves a synthesizing activity exemplified by the sorts of critical or reflective practice promoted for the sector's educators (see, for example, Schön, 1983; Brookfield, 1987; 1985 and passim; Moon, 1999; Dominice, 2000; 2007; Benade, 2012). Critical reflection, preferably based on one of these models, is seen as an indispensable part of a teacher's continuous personal improvement, their professional task of raising their learners' aspirations, and the goal of transforming their practice (Machin *et al.*, 2014, pp. 25–26).

But can such reflection make practitioners more creative? Creativity may not be amenable to development through simple or semi-autonomous (re)cycling of cognition, as some models of reflective practice seem to imply. Reflection may provide a way of identifying distinctions between the productivity of the genuinely new and that of mere variability and reproduction, but the frontier is hard to identify given the repetitive nature of some of this reflection (cf. Done and Knowler, 2011). For Macfarlane and Gourlay (2009), reflection is too often a confessional game in which participants perform a predetermined script of personal inadequacy and its institutionally accepted remedies for the benefit of their trainers. This is why, just as Ruddock (1991) considers reflective practices limited by their introspective nature, Hoyle and Humes (in Wilson and Wilson, 2011) demand that reflective practices extend beyond the private sphere via collaboration with an outside. As with any event, a capacity to change depends on an encounter with disruptive forces and the actualization of an internal capacity to differentiate. Reflecting on professional practice in a formulaic way is unlikely to do this if reflection relies on the false assumption that the reflective process is essentially rational or purely cognitive. For Hart (2010, p. 45), democratic learning is non-linear and involves a more tentative testing of insights in "daily practices and encounters", creating "a new loop" in an ever-growing and widening spiral. Indeed, Tara Fenwick (2008, p. 1), focusing on the problematic assumptions behind the desirability of self-assessment as a form of CPD, contests the view that it is possible and even desirable to predetermine or regulate what knowledge is worthwhile for a professional to learn. Thus, the alignment of reflective

practice with pre-existing goals offers little hope of change, since critical reflectivity has been domesticated by a techno-instrumentalist stance on education with "no intention of altering itself or its practitioners as a result of critical reflection" (Benade, 2012, p. 337). Hence, while Hillier and Figgis (2011) assert that such scrutiny is essential for dynamism and effectiveness of professional training, they do so in the belief that what matters is that practices are new to the individuals concerned. Apart from a lack of aspiration, the relativism of such ideas raises the question of whether the actual practices of reflectivity offer anything new, or whether they resemble so many ideas "born old" to simply "exhibit their conformity, their conformism, their inability to upset any established order" (Deleuze, 2001, p. 81).

A salient aspect of this view of individual human potential is that the myth of creative genius tends to be applied to men (Ellis, 1992, p. 192). For example, a brief analysis of genius in cinematic creativity implies that it concerns more than the ability to produce striking new works of art. Ellis reminds us that being accepted as a genius demands the ability to claim genius, and therefore a set of self-promotion skills. Valuing individual creativity can, thus, be related to a certain view of (male) power and the desire to conserve it.

This belief in the necessity of agency and the control of easily categorizable creative processes is clearly germane to a lifelong learning sector keen to promote its own ability to develop human capital by teaching, training, upskilling and so on. But it is not universally shared. For Tim Ingold (2008), our understanding of the relation between material and individual needs to be reversed. He attacks a tendency "to read creativity 'backwards' ", namely by beginning with an outcome (a novel object) which is then traced back, through the conditions which led to it, into the mind of the agent who produced this "unprecedented idea" (Ingold, 2008, pp. 16–17). In fact, a problem lies with an understanding of creativity which has both dominated western thought and become increasingly unbalanced, according to Ingold (2008, p. 3). Although creation, Aristotle felt, involved bringing together form (*morphe*) and matter (*hyle*), increasingly we have come to think of the forming process as something to which matter is subjected: our agency is exaggerated, just as that of matter is dismissed. Western metaphysics has been a "prisoner" to this representation of matter as static and the forming process as anthropocentric (Sauvagnargues, 2012, p. 2). For example, this form/matter division profoundly influences the early stages of Kant's critical philosophy. Kant argues that "ancient barbarism" risks degenerating into "intestine warfare", "anarchy" and nomadism of thought

which despises the "settled" notion of "cultivation of the land" (Kant, 1781/2007, p. 6). Kant seeks to impose his critical will on the formless and the material, depriving thought of its metaphysical dogmatism and naive empiricist illusions. The critical philosophy can be understood from the point of a separation which enacts a systematic and explicit cleansing of the *grounds* of thought (Martin, 1993, p. 91), articulating a discourse of hygiene which has become increasingly unsavoury.

This is not simply of historical importance. Practice in lifelong learning is influenced by this perspective, which supports a "command and control" view of the relationship between individual and world. However, Ingold is not simply out to critique this dualism, but wants to overturn its anthropocentrism, and to so do he draws on Deleuze and Guattari. For Deleuze, this instrumental relation between matter and form ignores the way bodies are constituted by an immanent power which moulds them by first individualizing and then massing them together (Deleuze, 1990/2003, p. 243). Deleuze is often invoked as an example of a "new vitalism", and is clearly influenced here by Bergson, who also distanced himself from the idea of some teleological "vital principle" which might reduce life's heterogeneity by coding or controlling its objects (cf. Bergson, 1907/2013, pp. 42, 415). A "new vitalism", on the other hand, concerns processes and multiplicities which are self-organizing, self-generative, differentiated and differentiating (Cronin, 2008, p. 308). (New) vitalism draws inspiration from technological advances to apply a morphogenetic ontology of relations to processes, stressing the fundamental importance of immanence and the specificity of events. It is also, for these reasons, closely related to many of the characteristics of complexity theory, in particular adaptability, co-evolution and self-organization through time (cf. Urry, 2005b, p. 237).

This applies to people as well as things, and can inform how we think of learning. In his early study of Hume, for example, Deleuze (1953, p. 91) argues that subjectivity involves a double movement of becoming-other as the new emerges and stabilizes temporarily. The importance of becoming as a double movement between that which was and that which will be, that which I affect and that which affects me, is fundamental to this logic of relations because it concerns not the terms, but what passes between them and carries them both away. This moulding cannot be definitive, since systems are never homogeneous, and even regimes of discipline and control, however pervasive, are destined to evolve as events as a result of the variations within them. In the context of this affirming vitalism, it is important to look for the "lines of flight" in this situation, or ways in which professionalism can

escape the attempt to reduce it to static objects (idealistic images of practice, prescriptive rules and relations of ethics, for example). Lines of flight are "potential pathways of mutation" in social or individual fabric (Patton, 2007, p. 5), and are singular and therefore incommensurable – they cannot be exchanged without some sort of surplus or excess one way or the other. This definition questions the extent to which a logic of exchange can describe the changing relations between learning and the wider economy, supporting the view that learning cannot be commodified. Far from being the result of agency or management, they are "the primal force upon which society is built" and form "a productive, affirmative and positive dynamism pointing to the nexus of change" (Albrecht-Crane and Daryl-Slack, 2007, p. 102).

Ingold's aim is, therefore, to supplant the focus on the creative individual with the creative forces and materials which transcend the forms to which they lend life (Ingold, 2008, p. 3). Ingold's main point here is that the hylomorphic model confuses creativity with novelty (repetition) because it focuses on product, however unique, rather than process. By abducting agency backwards from objects, we reinforce the subjectivist position and occlude the essential genetic relation of skilled practice to matter and the environment. Reversing the process to focus on learning rather than knowledge implies that learning in this context cannot involve exchange or transmission because (skilled) practice is not an iteration of, but an improvisation with, these processual flows of matter as indivisible intensities. As a result of these criticisms, the product-oriented view of creativity outlined above seems unhelpful on all the counts mentioned. Instead, creativity can be better understood as:

1. **Holistic:** it is impossible to reduce creative manifestations to four quarters of a whole because this atomization obscures the concept's essentially relational nature.
2. **Dynamic**: the interaction between its components is too sophisticated and integral to the term to be ignored.
3. **A-subjective**: creativity is in no way individualistic and cannot be understood without an overturning of many subjectivist presumptions.
4. **Processual**: creativity is fundamentally processual, which is why it is a-productive. The genuinely new cannot be defined by its productivity and, indeed, only relates to activity insofar as it must imply a halt to the flow of ideas and activity which simply reproduce the given.

Part II
Events

3
Making a Difference

The question, however, is what this means for practice: how do we become worthy of such creative events? Can creativity realistically be understood on these terms? Certainly, they make ideas such as "Big C" (BC) or "exploratory" creativity hard for educators to envisage. BC has been linked with "genius" level or societal change, which corresponds to the forms of innovation that produce genuinely new concepts and introduce a discontinuity into a system, for example in the form of a paradigm shift. This myth of a solitary genius transforming the world at a stroke is fanciful, however, and a second type, "Little C" (LC) or "combinatory" creativity, refers to the ways in which new ideas result from the recombination of existing objects in networks of knowledge. LC is evolutionary rather than revolutionary, implying that it builds on the given rather than disrupting it. In fact, rather than an ex-nihilo creation resulting from some magical individual or internal homunculus, LC implies that some basic recombinatory rule is at work at the neurological level of perception and appraisal. Some theorists of learning avoid neuroscience on the grounds that its findings are "too specialized" (Illeris, 2009, p. 4). But I'm not sure teacher education benefits from generalizations when specifics are offered, and neuroscience has certainly tried to explain the nature of such a "higher order" combinatory rule. For example, it has been suggested that, in terms of neural representations (Thagard and Stewart, 2011), the combinations of previously unconnected mental representations, constituted by patterns of neural activity, are themselves (re)combined in the brain. This "binding" process is clearly differential because its recombination enhances the capacity for further recombination – and it needs no recourse to magical explanations, since it reiterates the relational nature of (neural) matter.

Alongside this relational materiality, such binding is described as a mechanical process of *convolution* rather than synchronization. In other words, rather than the synchronic convergence of items to a homogeneous place in space-time (as a single neural connection or information gate, for example), creativity from a neurological perspective involves a dynamic enfolding (convolution) of connections as a multiplicity which is neither fully localizable nor reducible to a single point or moment. What matters is the process of dynamic growth from within, not the product of this dynamism at the edges: organic properties which Deleuze and Guattari associate with rhizomes, which I will turn to later. It also advances the debate about the supposed differences between artificial "digital" operation and organic, "analogue" thought by describing how synaptic communication is able to express two things at once. Rather than a simple, digital "yes/no" gate (cf. Shores, 2009), analogue thought works like an analogue clock: unlike a digital clock, in which the time is always at one point *or* another, analogue time is never actually at a specific point, but always becoming another because of its essentially processual movement. For educators interested in creativity, it provides both a physico-biological analogy of the operation of thought as an event and evidence of the importance of forms of convolution and becoming which are not restricted to a synchronic binary in thought. This kind of diachronic convolution does not require that difference be reduced to a single or other transcendent term with which it can be identical. On the contrary, it demonstrates how existing terms can be recombined in novel ways with a focus on the differential relations between them.

The pragmatism of this apparently abstract perspective is worth stressing here. The point is that being different is not enough, and difference must be *differential* in order to make a difference. Just being different is not enough, because the proliferation of the different in itself risks being a tedious process of variation within the same framework as long as the different refers to changes in terms rather than relations. This nuance is revealed in the distinction between *differential* and *different*. Keith Ansell-Pearson (1997) refers to difference in the terms of engineering: a differential gear establishes a new axis along which forces travel, usually in a different direction or plane. In *Le Pli* (1988b, pp. 22–23), Deleuze himself uses sketches to describe the way in which difference bends, reorients or folds movements which at first sight can seem unilinear. Line drawings show how a given trajectory is never *actually* stable, because it is always inflected by differential change as line becomes curve becomes ogive and so on. Our attention is drawn to the

way that things can change, but, if they maintain the same relations, any differences they might represent are really repetitions.

An illustrative example might be the creation of new products for mass consumption. Different products may vary in shape, size and colour, but the relation between consumer product and production tends to remains the same. This may seem an oversimplification, as consumers become more sophisticated and involved in the production and control of what is available through, for example, customer feedback, personalized products and shared resources on, for example, the web. But the analogy includes consumption patterns like these, which themselves may develop towards greater abstraction, as suggested above, when the things we consume become increasingly intangible: brands, logos, images, potentials. Consumers themselves may contribute to the product, for example through customization or personalization of products such as knowledge or learning, which are prime examples. Consumers may even internalize the consumption process, treating themselves as products to be displayed, enhanced and marketed, for example by making a spectacle of their own conformity to the demands of the jobs market (cf. Bauman, 2007; Krejsler, 2007). These differences, however, do not constitute creativity because they do not change the relations which obtain between subject and object; they merely reposition the terms of a relation which remains the same, objectifying subjects in order to perpetuate the same relation of consumption. If we think about this process chronologically, we see how things, be they virtual, concrete or fetishistic, are produced but simply accumulate along a line of time as one thing is just added to another. Consumption, possession and collection may merge in the practice of acquisition, but at no point does the overarching temporal frame change, and at no point are the different things actually differentiated in terms of their value. There's just more of the same stuff in relation to other stuff and to the same frame of reference in constant empty repetition.

Hence, the central difficulty, as Simon O'Sullivan (2008) has pointed out, is that, if we equate creativity with this sort of productivism, it becomes little more than the horizontal "piling up" of indistinguishable or trivial differences. Creativity must be more than this simple addition of disparate parts, and not just because we want it to be this way, for Deleuze. The singular, for Deleuze, is opposed to the ordinal (1969, p. 67), for at least two important reasons. First,creative events do not occur in isolation, but link to a series, even (or especially) when this link is a disjunction or break from past events. This means that the fact of addition exceeds the parts added together, not just extending the

series but creating a new, unique set of events. Second, we need a way of understanding creativity as something which has a value beyond a simple piling up of stuff, because not everything new is interesting, remarkable or important. Points may be added to the process, but, if the linear relationship is unchanged by the addition of more stuff, it is just perpetuated by it.

It's true that work on creativity which looks closely at its processes would probably not accept the idea that creativity is simply a matter of linear accumulation or reproduction. However, when these processes are subordinated to their terms as useful, novel products, the shift from the capacity of creativity to produce change to the capacity of its products to fulfil a purpose implies a utilitarian discourse which itself needs to be examined. In many contexts, this shift may seem unimportant or merely uncritical. But the continuing criticisms of lifelong learning as an instrument of socio-economic control suggest that, for practitioners, this shift underpins a highly conflictual view of the creative professional, contributing to the commonly evoked sense of personal unease or lack of professional identity in the sector.

Moreover, when policy texts fall foul of this conflict, they fail to effectively differentiate creativity from this repetitive proliferation, leaving themselves open to the challenge that they are more interested in repetition than in difference, exposing talk of creativity and diversity as empty rhetoric. Pragmatically speaking, for example, this leads to training which provides a plethora of possible strategies to trainees but does not provide the tools for choosing between them, implying that ultimately difference between them is a matter of chance or personal preference. If creativity is indeed confused with production in this way, two implications stand out for me when we try to draw links between creativity and learning in a teacher education context.

First, as we have seen, this productivist view lacks coherence because it relies on the view that creative events develop in a linear way. If creativity is reduced to production, it becomes an accumulation of individual moments, where the conditions of possibility of each moment are established before events happen. But this does not help us to understand the way in which creative events change the way we see the past, create their own conditions of possibility, and allow aberrant, unpredictable or previously impossible things to happen. Because it lacks this synthetic ability, it also fails to show the way in which a given creative event might influence a wide variety of apparently unconnected events, for example by remaining dormant until a chance connection can be made with something seemingly very different. Creative learning

should at least try to take account of this synthesis, if only to provide a more exciting picture of the engaging and stimulating openness of the learning experience.

Second, if we discuss creativity in relation to the way different things appear over time, it is important to be clear about how we believe time is actually working. The linear picture assumed by the need to produce and exchange postulates time as essentially homogeneous. It sees time as an invisible, unchanging non-presence with three important but implausible characteristics: it is reversible; it has no effect on events; and it can only be deduced from them because it has no being in itself. None of the characteristics are really very believable: time's arrow cannot be reversed, time has a fundamental effect on events, and it is not hard to imagine that movement and time are, in fact, different things. Alternatively, then, we can reverse this explanation, and imply that it is time which constitutes events, not vice versa. Time becomes non-homogeneous and events become singular, which is to say different and therefore not amenable to exchange precisely because they disrupt this sense of the linearity of one thing just happening after another with no effect over time. A linear view of time's sequential representation by events must be replaced by a description of time as a synthetic operator, working like a "chemical fusion" (Williams, 2011a, p. 62), if the sensible characteristics of creation are to be accounted for.

Certainly, for Deleuze, the idea that time is simply deduced from events is not justified by experience, on the one hand, and cannot explain creative change, on the other. Reworking the Kantian position (which situates time as a fundamental factor rather than something we deduce incidentally from our experience of movement), Deleuze asserts not only that time exists in itself as an indivisible multiplicity, but that it is time which also creates movement, not the other way round. It follows that subjects and objects, too, are therefore multiple, fractured and always already becoming Other, and it is therefore time, or the non-homogeneous experience of time passing, which accounts for creative change.

This description undermines the common-sense image of time as an empty category or straight line, but these metaphors have long been questioned. The Copernican and Kantian revolutions literally modernized the way we understand time, which, since Aristotle, had been believed to be perceptible only through movement. Advances in our understanding of movement mean that mechanical movement can no longer be understood as synonymous with time, since movement itself is no longer absolute but relative: the primal importance of time in events has been (re)discovered (Smith, 2013b). So, just as astronomy

undermined the classical dependence on the earth or the sun as cosmic reference point, philosophy displaced fractured "meanwhiles" or "dead times" between successive moments to allow actual change to take place (Deleuze and Guattari, 1994, p. 158). This development of an alternative temporal schema for events is one of Deleuze's key theoretical moves because it is needed to underpin his whole philosophy of creation and affirmation of haecceity. This overturning of the classical view of time is explicitly Bergsonian in its inspiration, and reflects Bergson's cultural context and the growth of cinema (Totaro, 1999). It underpins the development of a system built on the immanence of movement to all things in the system (cf. Ishii-Gonzales, 2012), reconstructing the world without abstractions such as fixed points of reference. In particular, it establishes time as a multiplicity (rather than a line, or a circle, for example) where linear sequence and causality break down – as in cinema, for example – bringing to the fore ethical questions of how to live in such spaces.

Following this view, a very different picture of creativity emerges. Creative multiplicities grow from within rather than single points in space succeeding each other. There is no line of time along which events can repeat and accumulate, since each event is different, creating in its own time, where aberrant movement happens in all dimensions of time. The present moments implied by linear succession become empty points, and creative events enter the past by working "backwards" (reconfiguring what was possible) and, indeed, forwards (constantly shifting what will be possible in the future). A focus on the singularity of these events is demanded, which is why some, like Gale (2010) and Woodhouse (2012), advocate the exploratory and sometimes disorientating implications of pedagogic creativity for classroom ethics. At bottom, it is as the differential processes of concrete social fields and particular moments in time that we must seek ethical movements towards new ways of being (Deleuze and Parnet, 1996, p. 163). This search, in the context of lifelong learning teacher education, is a reflection of one of Deleuze's most important questions: "[n]ot how to reach the eternal, but in which conditions does the objective world allow a subjective production of the new, that is to say, a creation?" (Deleuze, 1993, p. 89). The kind of creativity implied by this question can be described as *the differential prehension of affective matter*, a set of terms which needs explaining.

The creative differential

"Creative potential" could exist where a person was deemed able to create in principle, but unable to realize this potential (Cropley, 2001, p. 10).

Cropley sees educators' jobs as realizing such potential, but there is an interesting degree of ambiguity in Cropley's remark. Realized potential is certainly valuable, but does its value accrue to its exchange value in the form of marketable objects, or to its ability to perpetuate creativity? In fact, potential in these two cases is different. In the first, realized objects can be described as organized products of a power capable of drawing them from chaotic disorganization, which essentially plays the part of impediment. This power is discontinuous because it is enshrined in individual objects. In the second, however, power is continuous potency. It is the ability not just to produce but to affect, and to produce further affections in the form of affective matter. This is a less well-examined facet of creativity, namely its *differential* capacity as a process which engenders/engineers further creativity, that is to say more *difference*.

Differential prehension here is, therefore, the process by which changes at a presubjective level result from being affected by something (prehension) in this way. Bergson defines creativity in this way, as the production of effects through which it surpasses itself (Bergson, 1907/2013, p. 52), just as, for Deleuze, we only actually begin thinking at all when thought is constrained from the outside into new combinations. But, as things enhance the capacity for further change, they are, in turn, enhanced by it (differentially), making relations between things both dynamic and meaningful. Change, in a world where relations such as these supersede terms, means the capacity to make new connections, and these new connections themselves increase our capacity to make further connections. This process of differential change is not driven by a desire for novelty, but, rather, by the immanent properties of relations: it is in the nature of relations to relate, and they do this constantly, producing connections all the time by differentiating themselves. This productive capacity is what makes it differential: "true innovations" don't just change something into something else, but help "redefine what Lifelong Learning means for adults and institutions alike" (Tate *et al.*, 2011, p. 5).

Creativity cannot, therefore, be individualistic, if "the very core of existence" is that "one produces a body's own existence rather than 'discovering' its invariant form" (Zembylas, 2007b, p. 26). Zembylas points to questions of internal difference and the ways of negotiating it which underpin Deleuze's work. For Deleuze, identity does not have much meaning: it may make good sense to apply difference externally to already existing objects, but transforming the unequal into the divisible reifies it without explaining variation (Deleuze, 2004a, p. 283). Instead, intensive difference is internal to the relations which, he maintains,

constitute the events we understand as extensive objects of consciousness. Here, creative thought itself depends on our being able to make contact with that which precedes our undesirable habit of codifying the undetermined new:

> Here we find the principle which lies behind a confusion disastrous for the entire philosophy of difference: assigning a distinctive concept of difference is confused with the inscription of difference within concepts in general – the determination of the concept of difference is confused with the inscription of difference in the identity of an undetermined concept.
>
> (Deleuze 2004a, p. 40)

Difference works through encounters, where new relations are produced. As Colman (2011, p. 56) insists, encounters are not subject to method but, rather, to a "long preparation" (Deleuze and Parnet, 1996, p. 13), since the necessary openness they demand is not a simple attitude to be adopted or discarded, but, rather, the transcendental condition of thought (Marrati, 2008, p. 96). Encounters are always affective, and involve one body being affected by another and affecting it in turn to create new relations: art's cultural energy is precisely this "affective information" (Colman, 2006, p. 3), transforming the collective interests of a community and producing divergent forms. These transformations, however, are not of opposition or identity, but, rather, of the distinctness and obscurity of sensation and continuous matter (Williams, 2006, p. 112), since opposition, for Deleuze, "teaches us nothing about the nature of that which is thought to be opposed" (2004a, p. 256). The point here is that, in order to oppose two identities, a superior measure must be presumed in which the two objects can be compared. For Deleuze, this presumption means we miss any singularity in things, reproducing an abstract schema instead as ideal category. Creation, on the contrary, always involves singular affective matter, and postulates a fundamental similarity between the differential processes which constitute our physical environment and the differential processes which constitute ourselves as subjects. If no affective encounter has taken place, then there is no creation.

In fact, all affective contact between bodies is potentially creative, since it literally embodies difference. This is central to Deleuze's appraisal of the way art works by changing us. Deleuze sees more than truth value in art and literature, because for him the individual work of art can generate the conditions for insights into the "vital *in*-finitude" of what

he believes is the univocity of difference (Langlois, 2012, p. 18). Because actual terms never resemble the singularities they incarnate, every actualization is a differentiation and therefore "always a genuine creation" insofar as it actualizes difference (Deleuze, 2004a, p. 264). Even if the products of these encounters seem banal, the processes to which they point are not, and we can choose either to experience creativity indirectly in the form of actual concrete objects or to experience the more fundamentally constructive forces of creativity in difference.

From the point of view of lifelong learning, Deleuze's view that encounters are central to the learning process helps us to link creativity and materiality and the way learning depends on both:

> That is why learning may be defined in two complementary ways, both of which are opposed to representation in knowledge: learning is either a matter of penetrating the Idea, its varieties and distinctive points, or a matter of raising a faculty to its disjoint transcendent exercise, raising it to that encounter and that violence which are communicated to the others.
>
> (Deleuze, 2004a, p. 243)

If taking creativity seriously implies a concern for these processes in thought, our attitude to creativity changes radically. For Deleuze, an act of genuine thought is synonymous with creativity. But this is only true on the condition that to create is understood as, first of all, to engender "thinking" in thought (Deleuze, 2004a, p. 185). We are, therefore, no longer concerned with the objects produced by creativity, but by the dynamic movements which produce creative thought. The study of creativity in these circumstances is no longer an epistemological question of what or how we know, and operative creativity becomes inseparable from ethics and the question of how we are to live. The contrast between such an operation and the functional process which is subordinated to its products is worth stressing.

Functional creativity

I want to define functional creativity as that which is both new and valued for its relevance and utility. Novelty does not guarantee creativity: many products are novel, but many are irrelevant or incomprehensible froth. Similarly, things may have intrinsic value but be effectively useless, if, like a child's painting, they have no exchange value. This view has much to commend it: it provides a way of measuring creativity

by its end product, and thus a means of calculating returns on invest-ment in it. Creative people can be identified by measuring their activity against this standard, and lifelong learning professionals can train and be trained in accordance with it.

However, there are drawbacks, one of which is the implicit wasteful-ness of this view. Much creativity on this view is useless and irrelevant, it implies, and can therefore be dismissed or discarded. This is because creative products from the past risk being judged as practically irrelevant, and current creativity has an equally narrow scope defined by current, and therefore contingent, criteria. Creativity which may be useful for the future has little chance of recognition for the same reasons. The new evolves and falls by the wayside: *sic gloria mundi*.

But, looking more closely, the decision to identity certain practices with usefulness or novelty is not an objective one, but the result of a set of contingent factors and choices. Similarly, the criteria of usefulness and novelty are used as if they were objective facts, when in reality they themselves are contestable values. Is the criterion of usefulness really so important? Who legislates on what counts as useful, and for whom? By invoking usefulness in the abstract, the central questions of how the judgement of usefulness is made, and precisely how an object's relevance is measured, are both elided. Thus, agency is both assumed and denied: this selection itself and the fact that a selection has been made are both occluded, as if novelty and usefulness were given.

Second, the amenability of this functional view to management is suspect. Innovation, it is argued, is not just a matter of "luck, eureka moments or alchemy", but can be "managed, supported and nurtured" for anyone and everyone (Murray *et al.*, 2009, p. 7). For this manage-ment to be possible, originality must not be too uncomfortable, and should instead make existing discourses "more palatable to teachers and students" (Simmons and Thompson, 2008, p. 605). This assumes that creation operates within a closed system, defined and bounded by terms which, themselves, are transient within these boundaries. This omits reference to any process of creation which might disrupt the system from the outside, and from this standpoint innovation includes any practice, object or idea that is believed to be new by those adopting it (Hillier and Figgis, 2011).

This functional focus on the individual perception of novelty seems relativistic: is an individual's perception of novelty a sufficient guar-antor of newness and change? More importantly, does it encourage an encounter with new material, because it is judged on the terms of useful-ness, where acts of accommodation or adaptation to the given may be

favoured over those which change or challenge it? Effectively discouraging change, the focus on product does not account for the ways in which creativity might inspire further invention, even at the level of the actual products with which it concerns itself. Indeed, because the product is the only focus, the all-important process(es) of creativity risk being ignored in favour of activities that can be identified with individuality and productivity instead. The double focus on novelty and value might be better expressed as the conjunction of continuity and individualism, which underpin this view of creativity. Paradoxically, the more individual activity is continuous and coterminous with current desires, the more creative it is deemed to be as a necessarily productivist activity.

Operative creativity

An alternative to this view would postulate a creativity which is impersonal rather than individualistic, relational rather than relativistic, and operative rather than productive. This "operative" creativity (OC) draws on the work of Gilles Deleuze and on aspects of artistic creativity: understood on such terms, the new is essentially a riddle, whose solution effectively annuls its novelty (Ventzislavov, 2011). Creativity cannot be reduced to the solution to this riddle, but, while usually defined as the production of new and relevant objects, OC focuses on the processes of creation, challenging the relevance of novelty and utility to the debate. The enigma of the new is dramatized by replacing the question of "what" creativity "is" by the problem of when, where and what sort of life its processes imply.

The term "operate" is central to this distinction between process and product. The concept of operators is particularly important to a philosophy of relations, and Deleuze uses it in many ways. The most important of these is to describe the combinatory mechanism of linking disparate things, where a non-relation is still considered a relation because everything must be affirmed. In principle, an operator is a function which connects these different terms (typically addition, multiplication etc. in mathematics), and thus describes the way a concept can operate a conjunction/disjunction between entities, often producing a third. Deleuze insists, however, that philosophy needs to make the term for itself without limiting itself to the well-known connectives from science and mathematics (Deleuze, 1984), and so uses the term to describe the way any idea can be introduced to produce new ideas by connection. An author, for example, is an operator when a problem is set up so that

the work becomes "a process of learning or experimentation [...] where the whole of chance is affirmed every time" (Deleuze, 2004a, p. 249). Chance is introduced by an operator because combinations, even when they are reciprocal or chiasmic, are little more than exchange.

Becoming, therefore, must have a differently creative, zigzag motion of jumping between things (Lawlor, 2008). The best example of this is, perhaps, the activity of the brain itself, which is notable for "operating [transversally] across fields, bringing them together in new ways" (Murphie, 2010, p. 28). Hence, in *Francis Bacon: Logic of Sensation* (Deleuze, 1981b/2004c), artistic gestures of scrubbing and blurring are operations because they do not just remove clarity but, by doing so, introduce a new connection with vital forces of change at an ontogenetic level:

> this operation is possible only if the sensation of a particular domain (here, the visual sensation) is in direct contact with a vital power that exceeds every domain and traverses them all.
>
> (Deleuze, 2004b, p. 42)

What would such a thing look like? An impersonal description of creativity would rely for its justification not on relativism, but, rather, on a rationale of expression, a common theme in Deleuze's philosophy (cf. Deleuze, 1968b, 1971/1988a). It would be impersonal insofar as it would concern relations between a-personal terms, not an individual and a creative product. It would be expressive insofar as the creative product is a necessary actualization of the creative process. In the case of operative creativity, the process of creativity is separated from its product above only by a threshold where material and forces of change can be reciprocally connected: a state of affairs "cannot be separated from the potential through which it takes effect and without which it would have no activity or development" (Deleuze and Guattari, 1994, p. 153). But, if intensity and extensity are ultimately inseparable (Deleuze, 2004a, p. 281), no object can be appraised without reference to its capacity for becoming precisely because of this basic creative differentiation, which drives quality into quantity and transforms product into process. This has a number of implications.

First, in line with the definition above, operative creativity necessarily implies a virtual or abstract process of recombination of objects and ideas. This recombination is analogous to the neural functioning described above or a mathematical relation. As these processes are mastered and recognized as objects of perception, difference is cancelled out, sedimenting into forms whose properties are those of (re)production rather

than creativity (Deleuze, 2004a, p. 283). They nonetheless participate in the differential movement of creativity through the capacity for affect, or the sensation of intensity.

Second, it suggests that production is useful only insofar as it remains connected to these forces of difference, since ultimately objects, once fixed or defined, can serve no other purpose, and so disappear. Hence, for Deleuze, the intensities created by difference are supremely useful, because they are precisely what makes things differ(ent). Mistaking "functional" utility with the necessary participation of intensity in creation is a transcendent illusion with its own naturalistic moral perspective: not that things are this way, but that they *should* be this way.

Deleuze's ethical challenge, on the other hand, has a double focus in response to this tendency: first, he argues that things are not this way, but, more tellingly, that they *should not* be so. Our focus shifts from dead objects to living forces of change. This shift is helped if we agree with Deleuze that "[i]t is not even enough to invoke activity in the process of occurring or taking place, so long as the contemplative base on which it occurs has not been determined" (Deleuze, 2004a, p. 99). The "contemplative base" of creativity is the line of pure immanence, and it is on this plane that intensities are combined by the chaotic forces of difference. Ultimately, on this plane of pure immanence, all matter is subject to the same axioms, regardless of the forms they might take up, since any forms in chaos are immediately changed. This immanence is what allows prehension to be mutual, affective and material.

Thus, a "radical epistemological pluralism" is provided which rejects both individualism and holism (Brighenti, 2010). The goal, for Deleuze and Guattari, is to achieve the consistency of an abstract line or trait rather than of a single point, "to find one's zone of indiscernibility with other traits", and thus to "enter the haecceity and impersonality of the creator" (Deleuze and Guattari, 2004b, p. 309). This means that the products of creativity would be of little creative interest compared with the processual capacity to engender wider relations, and, indeed, the effects of these relations on what we are capable of. Here, the body is not simply alive but "replete with the ontogenetic tendencies of the plane of immanence's *a life*" (Manning, 2010, p. 118).

Thresholds and surfaces of creativity

As these references to immanence and pluralism imply, an especially important feature of operative creativity is this integration of a limit or

threshold as an in-between space. On this view, creativity happens when thought draws novelty from a sphere of chaotic activity, establishing this threshold as a sort of membrane between the two. Forces of differentiation work from below and achieve consistency through this act of thought, but only at points defined by immanent properties (just as ice melts at a temperature defined by its own chemical properties, and just as ground-breaking views reach an audience in *a* time and *a* place which allows them just enough acceptance for them to endure and break the ground on which they fall). The goal is to use "a minimum degree of order necessary to actualize the maximum amount of chaos" (Goddard, 2005, p. 23).

This threshold is the space where a stutter is provoked by an encounter with chaos or brute matter. The prehension *of* matter expresses succinctly the idea that we both prehend and are prehended by matter. Deleuze refers to this activity as "capture", as two material entities are affected by each other at the same time. This mutual influence implies a special in-between zone where such metamorphoses can take place:

> The middle is by no means an average; on the contrary, it is where things pick up speed. *Between* things does not designate a localisable relation going from one thing to the other and back again, but a perpendicular direction, a transversal movement that sweeps one and the other away, a stream without beginning or end that undermines its banks and picks up speed in the middle.
>
> (Deleuze and Guattari, 2004b, p. 28, original emphasis)

This ambitious claim refers to a specific ontological context. Deleuze does not claim that direct access to real objects can be achieved, but does claim that, as material parts of a univocal universe, we do express this univocity, albeit in ways which seem confused or liminal. Expression, here, is a key term in that it is opposed to the Derridean notion of a play of signifiers: rather than show the entrapment of language within itself, expression demonstrates a "function involving a real transformation" (Massumi, 1992, p. 18) as a single substance is developed into multiple new terms and their relations at this threshold. In his early study of Spinoza (Deleuze, 1968b), the workings of expression are attributed to all things, to the extent that expression undermines the dualism of a Cartesian mind/body split: we do not represent world, but express its shifting nature by being affected, crossing thresholds between human and non-human. Thus, expression is univocal: no series holds pre-eminence over its components, because only the immanence of expressive, axiological, recombinatory processes really matters.

An interest in such limits, and particularly in the surfaces between events, can only take place if the things being prehended have something in common, allowing a limit or surface of interference to exist. For Deleuze, this common feature is the way matter constitutes a flow as it changes in becoming. Dealing with this flow is the task of creativity:

> Activities can only be brought together on the basis of what they create and their mode of creation [...] what is given, at the limit, could be called a flow. It is flows that are given, and creation consists in cutting out, organizing, connecting flows in such a way as a creation is drawn or made around certain singularities extracted from these flows.
>
> (Deleuze, 1980a)[1]

The hesitancy which Deleuze expresses here regarding the notion of flow refers to the fact that what interests him are the cuts, breaks and reorganizations in such flows which account for creativity. Being creative, for Bell (2003), does not entail constant, unceasing communication and expression of ourselves, but, rather, breaking with these flows. He points out that it is not efficiency and productivity that make an economically successful city, but, rather, inefficiency and impracticality, because they force it to innovate by imposing blockages. For Bell, the process of experimentation may not in itself be very productive, but it is what makes creativity possible and leads to economic transformation and vibrancy. So, for operative creativity, the common factor in creative environments is their flows of changing forces and shifting relations rather than subjects, objects or terms. These flows are, by definition, emergent, and Deleuze and Guattari insist that experience is basically disruptive because it is constituted not by repetition but by lines of flight which constantly escape what is already known. These are connections between disparate components, forming new series which "jump from tree to tree and uproot them" (Deleuze and Guattari, 2004b, p. 557).

But this transversal leap in thought requires a *topos* (we could speak of a space here, if space itself were not also a set of relations) for relations to form. Relations cannot transcend each other, and must therefore exist on a plane where their relations can achieve consistency. What matters is the activity of "instauration" of a plane, where creativity can take place on these terms. Ideas are fixed on the base or foundation of a chaotic and material surface or a plane which works analogously to the plane created when making marbled paper. In this process, buoyant colours are poured into a bucket of water and stirred, and the resulting undulations are captured on a sheet of paper as the colours undulate with the

movement of the water (Souriau in Lawlor, 2011, p. 402). The analogy is an accurate one insofar as construction of the surface on which such designs can be fixed demands a plunge into swirling and unpredictable matter. It also implies a belief that the possibilities within it will produce something new in the form of a (double) membrane between water/colour/sheet, which can then itself be turned (over) to new (industrial) uses. Of course, the precise identity and conditions of these possibilities must be unknown from the point of view of both their conditioning ground (turbulent water and paint) and their identity-product (turbulence fixed on paper).

Conclusions for practice can be drawn from this analogy. For example, one helpful unit of measure of the creative success of professional practice is the differential of a given technique, which can help us to evaluate strategies for teaching and learning. For example, Ecclestone (2010) has proposed a "problem-based methodology" of self-definition, problems, and trial and error. Looking for differential relations in the process, we see that the issue here is not whether such an approach can work, but, rather, whether it can be shown to be differential, that is, effective in engendering other creative practices. This also leads us to question the view that professionalism can lie in the development of frameworks of trial and error, whose most obvious defect is their wastefulness and, ironically, lack of creativity as we tinker with what we have. Trial and error, moreover, lacks the kind of strategy needed to avoid being manipulated to one's disadvantage, and provides very thin evidence for future choices. It could be argued that this is why we have developed the ability to *simulate* instead: simulation as a form of re-enactment allows us a way of constituting the future creatively (and fairly effectively) compared with the uninformed tinkering which is often openly advocated in the pseudo-pragmatic guise of doing "whatever works". There has been much debate about the role of "what works", and the stance has been characterized as unhelpfully scientist by Biesta (2007; 2010), "sublinguistic" by Thomas (2009) and misconceived (Patsarika, 2014). Functional creativity, similarly, is an extension of the given, or a flow from what already exists, confined by current conceptions of novelty and utility. Instead of a utilitarian "tinkering at the edges", professional learning involves thinking "across the unknown", where we have to use what we know without entirely relying upon it (Pearce and MacLure, 2009, p. 259).

This may feel risky, but, as Zembylas (2007a, p. 344) points out, "no risk, no creativity, no good invention, thus no difference that makes difference". Creativity, if it comes, is not a return to the groove, but, on the contrary, breaking flows and working with what culture brings

into the training room to do so. To reiterate, creative thought must be "plugged into the outside" and the fluxes of intensity which cannot be represented or signified but which make experience singular and memorable. An act of genuine thinking is necessary to creativity, but, rather than resulting from the accomplishment of some higher synthesis, it involves a violent reversal and a form of aggression towards many long-held beliefs about the nature of thought:

> It is not a question of acquiring thought, nor of exercising it as though it were innate, but of engendering the act of thinking within thought itself, perhaps under the influence of a violence.
>
> (Deleuze, 2004a, p. 139)

Deleuze wants to uproot thought from commonplaces, particularly those that thought holds about itself (i.e. that it serves higher ideas and is basically benign). Creative work attacks such socially acceptable ideas because it connects with artistic processes whose laws are not amenable to exchange, which is why "puritans of all stripes condemn it" (Adorno, 1970/2004, p. 296). Crucially for Deleuze, creativity does not just exist to crystallize inwards, as Adorno implies, but operates a creative assembly whose particularity is to work "in the enclaves or at the periphery" where other notions do not regulate it. This allows it to cross limits and frontiers, "causing deterritorialized flows of desire to circulate" and even "transport fascizing, moralizing, Puritan and familialist territorialities" (Deleuze and Guattari, 2004a, p. 305).

Summary

Functional creativity		Operative creativity	
Defining characteristic	Consequence	Defining characteristic	Consequence
certainty	relativism	improvisation	relationality
control	individualism	chance	impersonality
truth	productivity	error	processual
End point		**Starting point**	

This table is one way of summarizing and contrasting the properties of the two views of creativity discussed here. Functional creativity is marked by certainty: only the useful is acceptable, and utility itself is

assumed as a criterion for judgement. Creativity is judged according to need (only the useful and appropriate is creative), which implies a certain relativism. Usefulness is judged relative to current values, including the need to be cost-effective, commoditized and exchanged on certain principles, *in fine* to ensure the individual performs to meet a collective's existing need.

Questioning the necessity of these values retroductively leads to an interesting reversal: can we reverse the question, asking whether to create on the basis of need really "makes" anything? To work according to need reproduces the circumstances of that need without changing it (Lambert, 2002, p. 157). Here, to create out of need is to conform to pre-established notions of who we are, what we "need", and even how these needs are to be fulfilled. Thus, "need" can also become an individualistic vehicle for control, since it demands that the individual take responsibility for a capacity for change "needed" by their professional context. Far from demanding some natural tendency within the individual to act in a particular way, operative creativity points to the ways in which biogenetic processes also necessarily lead us beyond the individual. In particular, examination of the processes of the brain do not take us into an increasingly closed, individual world, but, rather, open out the functions of *the* brain into the differential operations of *a* brain and the spaces between extended connections:

> If the objects of philosophy, art and science (that is to say, vital ideas) have a place, it will be in the deepest of the synaptic fissures, in the hiatuses, intervals, and meantimes of a nonobjectifiable brain in a place where to go in search of them will be to create.
>
> (Deleuze and Guattari, 1994, p. 209)

Finally, functional creativity assumes that useful, relevant objects do not change: they can be apprehended, judged, exchanged and used without reference to the changes brought by entering into these new relations. Productivity becomes the measure of creativity, but remains a vicarious one because creative processes are at best subsumed and at worst disavowed. On this view, functional creativity is no more than a dead end.

The key point here is that, although tendencies such as the need for productivity express differential relations in the way we think about and practise creativity, they quickly become homogenized and codified as discursive statements. This congealing is antipathetic to innovation, since it can be equated with the knowledge which emerges as the solution to a problem when we believe that we have solved it: it becomes

a product in the form of a conscious representation (Deleuze, 2004a, p. 336). This conscious product, however, is a "platitude" insofar as it repeats the determination of the problem itself, adding nothing and missing the way the problem develops as a multiplicity: if matter has a tendency to organization in closed systems, it is also undermined by its failure to achieve them (Deleuze, 1983, p. 29). The most important task is "that of determining problems and realizing in them our power of creation and decision" (Deleuze, 2004a, p. 337). Losing sight of this means losing our freedom to choose.

4
Creation at Work

Operative creativity is, therefore, not the production of an object, useful or otherwise, but the operation of a force of and in thought, which eliminates the possibility of both the object and the subject as unified wholes. This way of describing creativity is based on Deleuze's understanding and use of creativity, which are both radically different from those analysed above. Three main features characterize this approach, all of which both reflect and inform Deleuze's wider philosophical position.

First, Deleuze's approach to creativity is distinctly different from the attempt to tie creativity to individuals and their ideas. In fact, it is incompatible with a return to a source or subject of artistic inspiration or transcendent values, since it is both influenced by and implies "the most radical Modernism" (Williams, 2000, p. 203). Williams situates Deleuze's modernism in a rejection of idealism, which includes any search for abstract identities, and which turns against ideas of progress, ideals or lost origins. Actively spurning reductive linguistic explanations of subjectivity and explicitly undermining transcendent positions with his philosophy of events and surface effects, Deleuze turns to an ontology of becoming which continuously undoes the way in which things can be compared or revisited. This in itself is creative insofar as it endeavours to create and analyse new concepts necessary for innovative thought. Hence, Deleuze reverses the focus on creating products which can be exchanged to one on creating ways in which deep ontological processes might be respected. Unlike the spatialized matter in extension embodied by products, Deleuze's creativity reflects an entirely different interest in the way the actual is only understandable in terms of its existence within the unhinged time of events.

In Deleuze's terms, only difference is repeated in time. This disrupts a temporal scheme which sees moments in time as empty vessels

for events that simply add up. One moment cannot simply replace another, as we have seen, and a non-linear time scheme emerges which is capable of sustaining the correspondences between these series. So, when we turn to the virtuality of events which is actualized in states of affairs, Deleuze argues, we find a completely different reality. Here, it no longer matters what takes place from one point to another or from one instant to another (Deleuze and Guattari, 1994, p. 157). This is the "unhinged" or "sick" form of time ("Aiôn"), which coexists with sequential time of objects and allows the disjunctive and paradoxical experience of events to happen: Aiôn is the time of the event and of problems (Deleuze, 1969, p. 69).

This claim is synonymous with Deleuze's (controversial) reading of the Nietzschean Eternal Return's two moments. Its first is the linear form of time which breeds (the possibility of) *ressentiment* because it allows the same to return. Its second moment is the redemption of this *ressentiment*: the Return is possible because of the unity of past, present and future, and is therefore the metaphysically non-sequential, sick structure of time itself (Somers-Hall, 2011, p. 73). This allows us to see the relations between Chronos and Aiôn as reciprocally determining moments, like those of the virtual and actual, as Williams (2013) suggests. For Deleuze, certainly, virtual and actual presuppose and exchange with each other like images in a crystal (Deleuze, 1985, pp. 94–95). Time in this way works as a multiplicity of processes (Williams, 2011b, p. 164). This multiplicity of time(s) is asymmetrical, and therefore irreversible: we can never revert to what was because change has always already taken place, undermining any attempt to segment time as past–present–future. Moreover, because time's multiplicity is always becoming other, transversal links between series are enabled by what they share: the joint medium of difference which is determined in new series where creativity can actually happen.

In this context, acts of creation cannot be understood as the product of a given agent, and must, by definition, at least point to very different, passive ways of understanding real actions and knowledge. As Williams (2011a, p. 66) shows, this concept of the real goes beyond actual abstractions and into a speculative model whose transformations expose abstract forms for what they are, that is, incomplete. Acts themselves are neither useful nor new, if by this we mean products whose claim to novelty lies in their relative and entirely transient originality or their correspondence to actual "need". Instead, operative creativity substitutes the narrow field of interest of the actual with the much larger zone

of the virtual, whose creative promise relies on its being an operator rather than a producer:

> Autonomy gives way to interdependence, preservation of the individual agent to cooperative procreation, anxiety about keeping boundaries intact to a feminine-encoded program whose enfolded structure, rather than closing in on itself, opens outward toward complexity and prolific progeny. (Hayles, 2001, p. 151)

This is also why operative creativity is marked by improvisation, chance and error. It is improvisational because connections are made with whatever comes to hand, and what is prehended varies constantly in line with its dynamic functioning. It relies on chance rather than control, because of a proliferation which escapes attempts to codify its movements. A shift from instrumental motivation towards the wider aims attributed to "life" itself cannot provide a system to use as a basis for utilitarian calculations. Weighing up choices is not simply a case of either one thing or another, but, rather, one set or assemblage of affective states rather than another, neither of which is really reducible to the other. Human considerations must be resisted when they trample roughshod over the singular and individual nature of living reality. Finally, operative creativity is dependent on error rather than truth, since it recognizes that relational environments are always emergent and, therefore, in the process of becoming what they are not.

This is all based on a view of creation as a process which works like mutant abstract lines (Deleuze and Guattari, 2004b, p. 326). These no longer represent a world, but assemble a new type of reality which escapes the punctual binary of true and false, this or that. Deleuze's creativity, therefore, offers a different view of humanity, which does not fulfil its potential when faculties harmonize by recognizing a common object. Instead, our thinking and selfhood are at their peak when confusion prevails in moments of change. Gould (2006, p. 198) argues that this functional view of conceptual creativity as part of an empiricist trend in philosophy makes it similar to pedagogy, since both, he argues, are "affirmative and artistic" and based in experience. When we can find no overarching idea or story to explain how discordant images cohere – while yet being *constrained* to do so – then we are *learning* new things (Shores, 2009). Operative creativity and its micro-practices of improvisation, chance and error work through a creative stutter, which, I want to suggest, can be best exemplified by the effects of certain types of cinema.

Cinema as non-representational practice

It is possible that cinema can undermine epistemological questions about what can be said, taking us into more profound ontological issues of our relationship with a matter which cannot be represented. So much has been said about this relationship that, for some, it has been lost in a chaos of clichés (Lambert, 2002, p.131). On this view, cinema's task is to create new visual and aural images that might "give back" the body's relationship to the world – not simply represent it.

There are good reasons why this might be helpful from a methodological perspective in lifelong learning. A failure to represent, far from preventing enquiry, may actually help qualitative research to meet its complex goals because these goals are themselves emergent. It is often through paradox and aporia that the process of radically new thinking begins, and Woodhouse (2012, p. 140), for example, describes the kind of gut-wrenching physiological response which can take place when confronted with new ideas, stressing that this type of "crisis" is simultaneously awe-inspiring, rousing and inspiring. There is more to learning than Socratic elenchus, especially when the latter simply reduces us to silence. Indeed, I want to argue that such a crisis forms part of an operative process which enhances our creative potential as practitioners by breaking down our representational schemata (MacLure, 2011). This is partly because film itself, as an artistic practice, has no particular contract with truth, so cannot be considered a form of empirical data in a traditional sense. In fact, it makes no claim to reproduce or even represent truth of any kind, but, rather, "puts movement in the mind" (Deleuze, 2003, p. 264). On the other hand, it can ask, enquire and wonder (Wagstaff, 2000), while its directors can be anthropologists (Bernardi, 2000). Some argue that the kind of "sparse" cinema attributed to directors like Michelangelo Antonioni is particularly well suited to this kind of enquiry as a form of "investigative reporting" (Moore, 1995, p. 25). In any case, cinema cannot function as a repetition or a metaphor of the real for the benefit of a researcher's gaze, and must be tackled accordingly. Its perspective on the world is both unique and ubiquitous, making its potential to complement more traditional approaches considerable, grafting artistic processes onto more traditionally educational ones in a productive way.

This casts doubt on the interest of the "school film", a genre of school-based narrative which has interested many educators (e.g. Keroes, 1999; Gale and Densmore, 2001; Trier, 2003; Bousted and Ozturk, 2004; Munday, 2012). But there is a genuine risk that films about schools and

teaching reproduce commonplaces in form and content. This can be the case when their aim is to entertain rather than enquire or innovate, and especially if they serve as vehicles for the many stereotypes commonly held about teaching roles. On the other hand, other types of cinema explicitly attempt to innovate in terms of both form and content, explicitly positioning themselves as enquiry. Their goal is not to describe or promote a vision of what education should be, but, rather, to move the spectator in creative and interesting ways.

Spiritual automata

The question of whether cinema can actually do this is complex. For Deleuze, we must accept that cinema's early ambitions as a superindividual, federating political instrument quickly dissolved. Instead, he argues, cinema operates at a subindividual, psychic level to produce a "spiritual automaton" which has acted in different ways in response to different contexts over time. By tracing the development of this "spiritual automaton" in cinema, he states that we can better understand the ways in which thought can still hope to be creative after the industrial mechanization and mass oppression which have largely defined modernity. It is this "spiritual automaton," a figure drawn from Leibniz and particularly Spinoza, that plays a key role in Deleuze's attempt to find the identity of being and free thought from idealism. A spiritual automaton, he argues, sustains our creativity by continually forcing thought to think its own powerlessness or "inpower," thus establishing a new link with the world (Deleuze, 2005b, p. 162).

   Cinema forces this "inpower" by reminding us that thought is implicated in concrete forces of an autonomous world outside it. The argument is underpinned by a belief in the ability of autonomous images to directly affect us and allow us to escape from the automatism of everyday clichés and non-thought. According to Spinoza (1677/2009, p. 85), "subjective effects in the soul correspond to the actual reality of its object," according to laws established by an "immaterial automaton." However, thought operates automatically with reference to nothing other than itself, and Spinoza's "immaterial" automaton is therefore spiritually automatic in the sense that it occurs without the need for an outside agent. In this, Spinoza's spiritual automaton directly opposes theories of mind/body dualism: it is a monistic synthesis of a new content and a new form which places rupture within the mind, not outside it or between it and some Other realm (Deleuze, 1968, pp. 301–303).

Conscious agency in these conditions is not just a useless concept: it is a meaningless one, and thus truth becomes a largely inadequate concept, because it is not so much we who have ideas, as the ideas which are affirmed in us (Deleuze, 1978). Such affirmation exists in cinema, where the cinematic image creates automatic movement and gives rise to a "spiritual automaton" in the brain. In essence, a circuit is formed between the brain and the image which creates pure movement in thought beyond the imagination (Deleuze, 2005b, pp. 151–152).

However, Deleuze, as we have seen, is keen to interrogate any construct which is presented as given, autonomous or reified. For Deleuze, because a thinking entity (*cogito*) cannot be essentialized in this way, the possibility of thought presupposes a "flaw" in such a *cogito* in the form of a pre-subjective "non-thinker" within it. Once thought reaches this more creative level, a second type of spiritual automaton is created.

Following Antonin Artaud's claim that there is something within thought that stops it thinking, Deleuze equates this second automaton with the mummification, petrification or paralysis of thought due to a creative moment of contact with thought's own outside. This is the "core" or "underbelly" of thought (Deleuze, 2005b, p. 161), causing it to stutter and break its flow by introducing an interstice between automatic thought and the awareness of a body which disrupts it from within. This "idiot" within thought is what actually allows thought to take place at all (Deleuze and Guattari, 1994, p. 60), existing in a space beside the self which, through this process, becomes a strange *topical* entity or site.

This is often depicted by the image's content in the form of empty, disconnected places at the margins of urban development typical of Antonioni's films (Deleuze, 2004b, p. xi). Akin to "the knife to the heart" which makes a fissure and opens the text to the whole (Colman, 2005, p. 102), these images are marked by the irrational cuts and illogical connections that also abandon us to the content of situations which surge up when links between actions are broken (Marrati, 2008, p. 61). In such situations, bodies are no longer actors but acted upon. Rather than extend actions, purely optical and sound signs refer to situations where the possibility of "acting" shifts to that of "perceiving," and characters change from "agents" to "seers." They see the virtual in images that work like still life, evoking a movement which transcends material change. They are no longer marking time by their movement but revealing or developing it, particularly, in Antonioni, by their tiredness and waiting for something to happen (Deleuze, 2005b, p. xii). Struck by something intolerable in the world, even in the banal and insignificant,

a spiritual automaton arises within thought, seeing further than it is able to act (Deleuze, 2005b, pp. 164–165).

Reduced to this pure sensory state, we can, therefore, no longer rely on action, agency or reason to come to terms with a nature whose activities are beyond our imagining. So the development of a time-image involves the creation of a very different type of spiritual automaton with a transformed relation to movement in thought. As we have seen, for Deleuze genuine thought is inseparable from an awareness of its own "inpower" or inability to think in new ways. The mind contains a body which it cannot control, awareness of which constitutes a "nooshock" or shock to thought. The material automatism of cinematic images induces an intellectual automatism in thought by bringing it into contact with an outside (Deleuze, 2005b, p. 173). Stanley Cavell makes a similar point, that cinema's automatism draws attention to an outside world beyond control. This also frees us from the world as concrete, material outside by drawing attention to automatisms and autonomy outside ourselves:

> A third impulse in calling the creation of a medium the creation of an automatism is to register the sense that the point of effort is to free me not merely from my confinement in automatisms that I can no longer acknowledge as mine […] but to free the object from me, to give new ground for its autonomy. (Cavell, 1979, pp. 107–108)

Cut off from the actual outside world, this automaton in thought is activated by a more profound "outside," ethically redefining our sense of the world and restoring our belief in it as a whole and in our ability to choose new ways of living:

> The time image asks us to believe again in the world in which we live, in time and in changing, and to believe again in the inventiveness of time where it is possible to think and to choose other modes of existence. (Rodowick, 1997, p. 200)

What counts is not the movement of images but the interstice between them, which means that images are themselves taken from a whole to which they immediately return (Deleuze, 2005b, p. 173). As in montage, an interstice is introduced between images which operates a difference of potential between them to produce a third image as something new. It is an "irrational cut" which does not form part of an existing set, and is, therefore, not a matter of adding to a chain or series of images but of breaking out of them. Cinema shows us difference *literally* between

images by using montage which inserts this interstice as "differenciator" (Deleuze, 2005b, p. 174). For Deleuze, cinema is creative when its intimate relation to the brain is deployed to produce these "gaps" or "interstices" which, like the cuts between images in montage, present thought with its own limit:

> When the whole becomes the power of the outside which passes into the interstice, then it is the direct representation of time, or the continuity, which is reconciled with the sequence of irrational points, according to non-chronological relationships. (Deleuze, 2005b, p. 175)

This new spiritual automaton, therefore, differs from the classical conception of the mind's ability to make movement out of static images. Now, the spiritual automaton is the unthought in thought itself, unable to think difference as the whole yet confronted with its intolerable own. This "firm and impassioned conscience" reflects the claims of a consciously "modern" cinema, which is less interested in externals than in those forces that move us to act in one way rather than another. The important thing about Antonioni's modern consciousness is that it understands all our acts, gestures and words, to be merely consequences of our relationship with the world (Antonioni, in Cottino-Jones, 1996, pp. 25–26). Thus, his cinema undermines our self-belief and reflects Theodor Adorno's description of modernity as being dissociated as the individuals who live through it and a dislocated "modern" time (1991, p. 75). In this situation, the real can no longer be represented or reproduced, because it is mobile. Instead, it is "targeted" (Deleuze, 1985, p. 7) by an equally mobile subject in constant becoming.

For Deleuze, however, the modern transformation of certainty into problems does not indicate a "generalized method of doubt" or invite a "modern scepticism" where nothing is certain. On the contrary, the discovery of the question at the heart of the aesthetic indicates the transcendence of the problematic itself: problems are, he suggests, the "transcendental element which belongs 'essentially' to beings, things and events" (Deleuze, 2004a, p. 245). This problematic aesthetic is evidenced by *Il Grido* because it goes beyond the idea of the film as a journey of self-discovery or return to wholeness. Antonioni moves the theme of rootlessness from the literal to the figurative by effacing any sense of "home" from the narrative. For example not only has Aldo lost his home, but his intended destination is in transit too, since Irma has already "moved on" emotionally. Antonioni once said that "the world,

the reality in which we live is invisible ... hence we have to be satisfied with what we see" (in Nowell-Smith, 2008, p. 200).

Hence, the fact that films are sometimes interpreted in ways which do not correspond with the director's intentions has, Antonioni feels, little importance. Films do not need to be understood or rationalized, but operate on a much more material level: it's enough that a film be "lived" as a "direct, personal experience" (Antonioni, 2003, p. 110). This explains why we are not always invited to identify with the characters, who are often used as "environment" rather than as protagonists as such. These features are pushed to their limit by Antonioni and come to distinguish a particularly sparse style which, he felt, characterized all his work (Antonioni, 2003, p. 39). In *L'Avventura*, for example, Antonioni refuses to provide many of the linking shots normally used to make the spectator feel comfortable by carrying us gently through the times and places of the narrative (Cameron, 1962, p. 2).

Increasingly, this sparseness comes to define a typically "Antonionian" cinema of empty spaces and disconnected lives. Although all the relevant information is, in fact, included (albeit in the specifically "visual language" which distinguishes these films), this ellipsis expresses a gaze with little concern for the viewing subjects' conventional demands. This makes the purpose of a given film or shot difficult to identify, and, indeed, visually sparse shots evacuate such expectations and seek beneath them a form of "objectivity" which reminds us of the necessarily material existence of a "registering" camera, its director and the film itself. The final shot of *Il Grido* is exemplary in this regard, with no real information being given as to how or why Aldo falls to his death.

On these terms, Antonioni's work is comparable to that of Virginia Woolf and Terrence Malick, with a consistently ambiguous visual approach which is both "depressing and eye-catching" (Verstraten, 2012, p. 126). This semantic indeterminacy is seen as part of a cinema which claims to render truth rather than logic, claiming to be simultaneously realistic and anti-naturalistic (Bondanella, 2007, p. 109). Antonioni certainly claimed to be seeking truth of a sort through his "archaeological" method, and felt that cinema's greatest pitfall was its potential for lying. Yet, "lying" here is defined as a certain infidelity to what the artist feels driven to do:

> Whenever I make a film, I have inside me a certain truth – "truth" is a bad word. Here inside, rather, I have a confusion in the pit of my stomach, a sort of tumor I cure by making the film. If I forget that

tumor, I lie. It is easy to forget, even if I subconsciously realize I am forgetting. Very easy. (Antonioni, 1969b)

On the one hand, therefore, Antonioni's reflexive archaeology concerns the issue of the gaze itself as revelatory not of some profound reality but of the multiplicity of images which the careful gaze exposes. The status of the real is questioned as each image is shown to hide other images *ad infinitum*. Unambiguous significations are constantly withheld by this process, and an hermeneutic task of auto-analysis is "introjected in to the characters themselves" (Brunette, 1998, p. 2) rather than being laid out in narrative form. The viewer is also invited to participate in this task by a probing camera which shifts restlessly from the subjective viewpoint of the characters to other, stranger perspectives. Hence, beyond the desire to subvert genres such as *film noir*, arguably the most important of the conventions which Antonioni aggressively disrupts is that of the cinematic gaze itself. This is significant because narrative conventions in cinema are frequently – and problematically – mistaken for reality (Jameson, 1992, p. 175). As viewers, we sometimes forget that the images on the screen are at several removes from the real they sometimes purport to convey, mistaking a quintessentially two-dimensional image for its multidimensional object. We think we recognize what we are seeing, but we do not.

The striking conclusion is that, without a shock to thought which disrupts the flow of such ideas and recognitions, for Deleuze, we are not yet thinking, and the question arises as to the cinematic practices which might provide the necessary shock. Although cinema such as Antonioni's leaves us with "only a belief in this world" (Deleuze, 2005b, p. 181), its examples of creative activity can inform and enhance teacher education practice in lifelong learning by posing the challenge of "creating new links between humans and this world" (Marrati, 2008, p. 64).

The conditions of a true critique and a true creation are the same: the destruction of an image of thought which presupposes itself and the genesis of the act of thinking in thought itself. (Deleuze, 2004a, p. 176)

These views are bold and raise many questions. How far can cinematographic texts shed critical light on current conceptions of creativity? To what extent might an encounter with such texts itself enhance creativity in research and practice in lifelong learning? I'd like to follow Deleuze and turn to the cinema of Michelangelo Antonioni as a response to these

questions. What I want to suggest is that cinema like Antonioni's meets some of the most important challenges in lifelong learning, doing more than just reflect back to us the image of our dislocated, modern selves. As a poetic achievement, this is not without merit, expressing clearly and coherently a profound state of affairs. But of more importance to lifelong learning is the way in which it induces a creative stutter by deliberately undertaking creative acts in line with a clear vision of how creativity can work to suggest a renewed, more material, form of ethical practice.

Creativity according to Michelangelo Antonioni

The work of Italian director Michelangelo Antonioni provides a rich example of the sort of stuttering which I have linked to creativity, and I want to examine it from two directions. In the first instance, the films themselves can be seen as creative operators. Second, I want to examine the mechanics of Antonioni's artistic practices, and the ways in which they induce stuttering. Drawing on the director's own accounts of his work as well as critical commentary, this particular set of artistic practices can provide lessons for teacher educators in lifelong learning at a time of significant change. Deleuze suggests that the literal and metaphorical journeys in Michelangelo's cinema provide the viewer with an encounter with new "psychic situations," or ways of being in the world (Montebello, 2008, p. 93). This encounter involves a certain shock because of the profound changes it implies, and it's worth remembering here that Deleuze combines a double connotation within the verb "choquer," which expresses not only the (metaphoric) emotional idea of an encounter with something strange (and perhaps violent), but also the (literally) physical idea of a "bumping" of two things together. It would be wrong to privilege the former over the latter if we are to take Deleuze's frequent invocation to understand such ideas "to the letter," especially in regard to Antonioni's work, with which it has a striking degree of affinity.

Antonioni – the films

Michelangelo Antonioni (1912–2007) has been described as "one of the true originals of contemporary cinema" (Zucker, 1996, p. 39). Making 16 feature films and many short films between 1943 and 2004, Antonioni was "one of the most subversive and venerated" of a generation of rule-breakers (Lyman, 2007). For Gandy (2003, p. 227), Antonioni's cinema explores a metaphysical void through a "phenomenological exploration of the limits of human creativity and perception."

Antonioni deliberately sets out to disrupt the comforting narrative of conflict resolution in films which, like *L'Avventura* (1960), claim to be a "*film noir* in reverse" (Chatman, 1985, p. 16). This is a sign of the modernity of Antonioni's cinema. While the films often use popular formats, they never really fulfil their expectations because they are so highly self-conscious. For example, although many of Antonioni's films exploit the detective genre, they do so in ways which contradict its usual precepts, with films such as *L'Eclisse* (1962) fading into more personal narratives. These films stop us in our tracks as we struggle to participate in their alternative narrative. But creativity is more than a reaction to a dominant tradition, and these films also operate in their own way, not just in reaction to something else.

This creativity works at technical levels but is also apparent in the plot summaries from early and late films. *L'Avventura* (1960) is perhaps Antonioni's most acclaimed film, the plot of which initially follows that of a murder mystery. Anna (Lea Massari), the daughter of a diplomat, has invited her less wealthy friend Claudia (Monica Vitti) to join a group of well-heeled Romans on a short cruise around the Aeolian Islands. When their yacht stops at the barren island of Lisca Blanca, Anna completely disappears following a quarrel with her fiancé, Sandro (Gabriele Ferzetti). After an extensive but fruitless search, the trip resumes on the mainland. Sandro and Claudia continue searching for Anna, following vague rumours of her reappearance, and then begin an affair which seems to mirror that between Anna and Sandro. Failing to find Anna, they rejoin the others at a hotel near Taormina in Sicily. During the party, Claudia finds Sandro in the arms of a prostitute, and runs outside. Sandro follows her, and the two appear to make some sort of uneasy compromise about their relationship. Antonioni described this moment at the film's release as "a sort of mutual pity" (Antonioni, 1960b) – an interesting statement that I return to later.

L'Avventura offers a striking counterpoint to the classic murder mystery. As author Alain Robbe-Grillet remarked, Antonioni's films could be contrasted with Hitchcock's (Chatman and Duncan, 2008, p. 9). Like *Psycho*, for example, released in the same year (1960), the film quickly and provocatively dispatches its leading character, but, unlike Hitchcock, *L'Avventura* never develops suspense. On the contrary, he gives us clear clues from the start that Anna is already in some way spiritually or emotionally absent and ready to be replaced by Claudia. Nor is the mystery of her physical disappearance solved, because, unlike in Hitchcock's work, where every detail is important, Antonioni introduces a symbolic economy where everything that seems important

loses its value. Narratively, *L'Avventura* is more interested in the tension between the haunting knowledge of Anna's disappearance and the equally haunting fact that most of the characters come to act as if she had never existed. Rather than simply reverse or undermine convention, the film draws us into a world where our expectations about what happens and what matters are systematically both questioned and changed. The resulting disjointed plot challenges our belief in control and reminds us pedagogically that non-resolution is indicative of the human condition.

Similarly, in the much later film *The Passenger* (1975), the thriller genre is redirected by deliberately reducing suspense to a minimum (Antonioni, 2003, p. 107). *The Passenger* looks back to many Italian neo-realist films, which have been seen as basically road movies telling of the search for the new Italy (Wagstaff, 2000, p. 41; Restivo, 2002, pp. 22–23), rather than simply documenting reconstruction's problems or a given set of themes or values. In particular, this meant showing the differences and forgotten lives that were emerging after the fall of fascism. *Gente del Po* (1943) is certainly an example, but Visconti's *Ossessione* (1943), De Sica's *Umberto D* (1952), Rossellini's *Journey to Italy* (1954) and Antonioni's own *Il Grido* (1957) arguably carry out this search more powerfully and originally. *The Passenger*'s narrative is a good example: a TV reporter – suggestively named Locke (played by Jack Nicholson) – adopts the identity of a dead gun-runner and is eventually murdered in an obscure hotel. Despite its traditional parallel chase narrative, most of the film recounts Locke's slow progress through Europe with a strangely detached and nameless girl. There is very little actual "action" as they head towards the increasingly desolate landscape of southern Spain, and, indeed, using the usual action scenes of a thriller would have been "banal," Antonioni claimed (in Brunette, 1998, p. 133). Instead, the goal was to make a suspense film where "action itself becomes problematic" (Brunette, 1998, p. 135). Antonioni's films thus extend neo-realism's focus on shifting, rootless people confronted by new cultures and languages, an extension which, in the 1970s films, takes the theme of geographic and psychological emptiness into new landscapes outside Italy. This focus aims to show how, away from the safety of home, characters seek self-knowledge in and around a specific place (Mulvey, 2000, p. 97).

This quest for self-knowledge is illusory, however. Perhaps the best-known example of this is the frequent reference by Antonioni to emotional sickness or the "sickness of Eros." Many critics have pointed to the repressed male desires expressed in the distorted eroticism in sequences such as the Gloria Perkins episode in *L'Avventura*. Gloria

Perkins (Dorothy De Poliolo), a famous prostitute, is mobbed by a crowd of men in Messina, crystallizing the film's thematic treatment of sexual tension in a media-fuelled "moronic circus" (Williams, 2008, p. 52). The dehumanized masses portray a society addicted to spectacle but quickly satiated by it. But they also supply a key narrative thread by setting up Sandro's betrayal and humiliation as the result of another chance encounter. Hence, the sexual drives of *L'Avventura*'s male protagonists have been displaced onto iconic objects and voyeuristic spectacles, a sign of a certain sickness in their emotional relations. The consequences go beyond the simple problem of self-delusion which it implies:

> the masses in *L' Avventura* are so hungry for human attention that they mob the pseudo-writer/prostitute Gloria Perkins. But often, the interest in life is crushed and people become bored, sullen and, even what ought to be life's delights become unappealing, and even ugly. (Elder, 1991, p. 7)

Antonioni's argument is that, beyond changing circumstances post-war, people had changed too, and needed to recognize this rather than revert to old myths and morals (1972, pp. 326–327). The issue transcends gender stereotypes, since characters like Giuliana in *Il Deserto Rosso* are no longer helped by anachronistic attitudes to change which are "deeply rooted" but "dead and gone" (Antonioni, 2003, p. 79). These characters can only survive by adapting, and need self-renewal rather than self-discovery, so Antonioni described his work as digging, a form of "archaeological research among the arid material of our times" (in Cottino-Jones, 1996, pp. 97–98).

Reflexivity

This research uncovers a number of uncomfortable facts. Among these is the awareness that, as reflexive moderns, we cannot ignore our present psychic afflictions, in particular the emptiness of reflexivity, a central concern for late modernity's lifelong learners. *L'Avventura's* Sandro knows that his search is not romantic, but spiritual: what he's looking for is not love but the *desire* to love. Like *The Passenger*'s Locke, he is perfectly aware of the vulgarity and uselessness of his erotic impulses.

For this reason, both *L'Avventura and The Passenger* overturn the myth that it is enough to "know oneself." In the 1960s, not only were people "still living with the moral concepts of Homer" (Antonioni, 1969b), but they all knew it, and needed no analysis or introspection (Antonioni, 1960b). Any film which subverts this introspection by drawing attention

to a reflexive gaze that is supposed by convention to be objective and invisible is likely to disrupt our expectations. This is why making a film is an effort against ourselves, and why creation is always an effort (Antonioni, 2003, p. 160). We have to question our ability to reflect on ourselves, critiquing not just what we see and the perspective(s) from which we are seeing it, but why we are even looking at it at all.

Stutter

This effort is exemplified by *The Passenger*. In the film, a burnt-out investigative reporter, David Locke, regrets that "we translate every experience into the same old codes" and decides to swap identities with a fellow traveller he happens across in a remote desert hotel. In fact, Locke wants to do more than just cast off his professional life: he wants to "recharge" it (Walsh, 1975). His is a desire for a profound philosophical escape from habitual forms of perception and thought (typified by the gaze of the reporter), but it also embodies a more affirming message about a confrontation with the alterity of a constant becoming-other.

For Deleuze, cinema achieves this because it transcends the formal rules of language or discourse as representation of some other world. Cinema, for Deleuze, is not even comparable to a language, and assimilating one to the other is "the best way to bypass cinema's singularity" (Marrati, 2008, p. 49). It can, however, be understood as a signifying material which uses its own tools (light or space in Antonioni, for example) to convey sensations. Rather than a language, the cinematic frame resembles an information system which is more or less saturated by data collected in sets and subsets (Deleuze, 2005a, p. 13), for example by *mise en scene* and depth of field. As art, it is a communicator or, better still, an operator of sensations by producing disruptive encounters in which we participate or are captured.

This is why the viewer cannot be said to control either the film text or their reaction to it, as film affects the spectator. Subjects stutter when confronted with a montage which presents new ideas in between existing notions, often in a hesitant way. This undermining involves being a "stammerer of language itself" rather than a stammerer *in* language (Deleuze and Parnet, 1987, p.4): not just reproducing a linguistic scheme, but undermining it with creative change (cf. Deleuze, 1993, pp.135–143). This disruption does more than simply challenge a given system of expression, and Deleuze argues that the possibility of such stuttering depends on how well we understand language itself to work. Language is often taken as a homogeneous, closed system with its own relations and terms in more or less constant equilibrium. Stuttering

in this case changes nothing, since the closed system of language has already incorporated its possibility within itself. However, if we treat language as an open system, everything changes:

> But if the system appears in perpetual disequilibrium or bifurcation, if each of its terms in turn passes through a zone of continuous variation, then the language itself will begin to vibrate and stutter. (Deleuze, 1997, p. 108)

Deleuze insists that a "milieu" is needed for this to happen, because stuttering is not a purely subjective activity: in effect, it is the milieu which allows a sort of vibration to take place by acting as a "conductor of words" between the speaker and the environment and between the enunciation and its context. Because speech is always conducted by an environment such as this, new content can enter speech and we can step into this zone of indeterminacy between the known inside and the new outside. In this way, language itself, he believes, is made to scream, stutter, stammer or murmur, and grows in this way "from the middle" because, as an open system, this potential for change lies at its core:

> Creative stuttering is what makes language grow from the middle, like grass; it is what makes language a rhizome instead of a tree, what puts language in perpetual disequilibrium. (Deleuze, 1997, p. 111)

There are many ways in which this can work, and the concept of stuttering helps us to situate Antonioni's work, which is not reducible to a building on or negation of a more conventional discourse. Although repetition and negation are common strategies in thought, for Deleuze, they cancel out our ability to understand what makes anything special, the "haecceity" or "thisness" of an event. Creative educators need to subvert this type of "sedentary thinking" by using "nomadic interventions" instead (Kozin, 2009, p. 105).

These interventions look at a phenomenon's specificity, rather than its difference from something else, by creating concepts which are adequate for this haecceity rather than constantly referring back to some transcendent model. It introduces a gap between dominant values, and, second, this small change makes these dominant values stutter because they are revealed to be no longer self-sufficient (Bouaniche, 2007, p. 229).

For O'Sullivan (2009, p. 249), this production passes through "moments of noise" or "glitches" in which language is brought into

contact with other forces and freed from its basic task of signifying something. Commenting on similarities between Lacan and Deleuze, Watson (2013, p.10) stresses that "we can never identify fully with the Other because [...] a [productive] gap always remains." This "in between" zone of disjunction between self and Other is literally vital for creativity, since it is where change happens. The question of creativity is, therefore, that of becoming, and lies in the way an aesthetic encounter operates at the limits of our capacity to understand and act *between* what we already know:

> Everyone can talk about their memories, invent stories, state opinions in their language [but] when it is a matter of digging down under the stories, of cracking open the opinions, and reaching the regions without memories, when the self must be destroyed, it is certainly not enough to be a "great" writer, and the means must remain forever inadequate. (Deleuze, 1997, p. 113)[1]

Carrying out this archaeological operation means breaking the means of expression in ways which allow an unknown, foreign language to grow in the cracks of practice. The sensations created in this way are, therefore, not just fragmented versions of the same sense data which we habitually use to understand the world. This data is related to existing ways of thinking as soon as we perceive or recognize it, and so does not really change us. Creativity and artistic practices both subvert this recognition, because neither responds to what the public expects, producing instead the untimely, the unrecognizable and the unexpected (Deleuze, 2003, p. 268).

Affection

Ultimately, therefore, art refuses to reassure us with a mirror image of a subjectivity which already exists (O'Sullivan, 2009), introducing something new in the form of becoming. Becoming describes our move away from the centre to the periphery at the limit of what is deemed normal. Both individually and collectively, minority becoming radically overturns the hierarchies and transcendence of majorities, albeit in imperceptible ways. This point is important because it serves to justify the view that minority cinema such as Antonioni's is not simply an aberration from a dominant model. For Deleuze, minorities, whose activity is never entirely suppressed, do not negate, contradict or overthrow majorities, but, rather, undermine them like weeds, introducing emergent new forms in a constant process of becoming, creating for a people yet to come.

More specifically, this evocation of a people to come works through creative practices which perform the new by producing sensations during "affective moments." The chief characteristic of such moments is to escape the signifying function often attributed to language. Instead of being vehicles for meaning in this way, they impact on us at a visceral, a signifying level, inducing a certain hesitation or "glitch" as we encounter something essentially new. And, while this "glitch" does act to break the flow of our usual thoughts and ways of thinking, it is a far from passive moment for the spectator, because it insists on a response (O'Sullivan, 2009, p. 249), namely, thought.

This is why, for Deleuze, the fact that we are capable of thinking does not guarantee that we actually do so (Deleuze, 2005b, p. 152). Moreover, thought is not a natural capacity to which we can return at will. Nor, by implication, do we keep thinking once we have started. On the contrary, the "image of thought" as a natural activity which tends towards the discovery of the truth is a subjective presupposition which, Deleuze argues, too many thinkers have failed to recognize. The prime example of this is the Cartesian subject's formal isolation of the representative content of ideas and the separate form of a consciousness. Descartes' deduction of a *cogito* must be seen in its historical context: the great scientific discoveries of the 17th century brought mechanistic explanations of movement and scepticism about other less rationalistic explanations (Montebello, 2008, p. 12). Philosophy reacted by postulating transcendent bodies such as the self and the *cogito*, which rely on a dualistic world view: man/world; mind/body; thought/matter and so on.

However, such a universe struggles to account for either our relation with the world, or our constitution in it, without recourse to subjective presuppositions, namely the existence of a *cogito* endowed with a "natural ability" to think (Deleuze, 2004a, p. 164). Not only are these presuppositions not acknowledged, but Descartes, like others before and after, misses the brut(e) content of ideas as things themselves because of his distinction of ideas and things on the grounds of transcendent reason. Objectivity is deduced axiomatically, but the participation of subjectivity and its synthesis in beings is denied. Matter and thought are sundered by this sleight of hand; our link with the world is broken, justifying our idealism.

Deleuze believes that hope, nonetheless, exists for a renewed belief in the world on condition that thought, if it happens at all, is not produced by logic, speculation or any other form of idealism. On the contrary, he argues, it works in the form of an automatic body, unpredictably and not always comfortably, as a result of an affective shock brought

by the image. Prior to effort or social conditioning, Deleuze argues, the artistic essence of the cinematic image is realized in a shock to thought as a violent, direct effect on the nervous system (Deleuze, 2005b, p. 151). This "nooshock" is the communication of movement within images themselves, and thus has nothing to do with the shock we feel before representations of violence so common in commercial cinema (Deleuze, 2005b, p. 159). On the contrary, a shock to thought happens when cinema brings together what is essential in the other arts to arouse the thinker within. At bottom, Deleuze argues for the "dark glory and profundity of cinema" whose images carry out a "theft of thoughts" and render the viewer like a mummy or an idiot, at the very limit of their cognitive capacity. For Deleuze, a plane of immanence belongs to thought *de jure*, even if *de facto* other images of thought have tended to emerge (Marrati, 2008, p. 91). This plane is the outside or non-thought within all thought, "that which must be thought and that which cannot be thought" (Deleuze and Guattari, 1994, p. 59).

It is precisely at the limit of this plane that thought can be awakened in its "inpower" (Deleuze, 2005b, p. 161). This limit is a "fissure" or "crack" where the reverse side to thought lies in a "hole in appearances" as images are unlinked and voices appear in voices.

> If thought thinks only when constrained or forced to do so, if it remains stupid so long as nothing forces it to think, is it not also the existence of stupidity which forces it to think, precisely the fact that it does not think so long as nothing forces it to do so? (Deleuze, 2004a, p. 345)

If it is true that thought must be forced or shocked, it is not the return to creativity which takes place, but the arrival of a profound moment of realization that we are not yet thinking. This limit is both a source and a barrier to thought because it introduces a thinker into thought, shattering the "monologue" of a thinking self by confronting it with its own outside. This outside is not a homunculus in the mind, but a material, unknown body, fracturing our selfhood with a "suspension of the world" (Deleuze, 2005b, p. 163). Cinematically, this suspension brings the visible to thought by presenting the visible as a mobile, emergent phenomenon. Rather than being there, the visible is constantly arising and being revealed in thought. Antonioni's insistent use of fog and mist in *Il Grido* and *Il Deserto Rosso* does not mask or veil anything, but, rather, presents the story of thought's emergence from its own impossibility.

This argument involves a number of paradoxes. Whereas traditional cinema may petrify the viewer, the kind of stutter described here as a result of genuinely creative moments in film also induces a particular form of inactivity or exhaustion demanded by the surrender to film mentioned above. This contradicts some of the common views of creativity described above, which conflate it with new and useful things and the agency which this choice both implies and occludes. A further paradox appears in this rather abstract view of creativity when this passivity is justified by an explicitly realist perspective. For Stanley Cavell, cinema's reproduction of the world is far from being simply voyeuristic precisely because it has no need for power over creation:

> How do movies reproduce the world magically? Not by literally presenting us with the world, but by permitting us to view it unseen. This is not a wish for power over creation (as Pygmalion's was) but a wish not to need power, not to have to bear its burdens. (Cavell, 1979, p. 40)

Cavell recalls the neo-realist view that cinema's power does not lie in its ability to simply document events. On the contrary, its great potential lies in its critique of the anthropomorphic myth of control and subsequent destabilization of the narrative of identity, evoking endless series of new meanings.

Images

The first effect of these images is their strangeness. Rascaroli and Rhodes (2008, p. 42), have argued that, rather than describe reality, the concentrated gaze of these films "make[s] the familiar strange" and "warp[s] things out of familiarity." Rather than cold or empty, they are "shocking" and "jarring" (Rascaroli and Rhodes, 2011, p. 1). It is said that they work as a kind of training because Antonioni forces us to tackle serious issues, albeit "without offering any help" (Chatman and Duncan, 2008, p. 31). He argued that this was demanded by disordered experiences which contradicted this sense of order:

> I felt somewhat annoyed with all this sense of order, this systematic arrangement of the material. I felt a need to break it up a little. So, having a certain amount of material in my hands, I set out to do a montage that would be absolutely free, poetically free. (Antonioni, in Cottino-Jones, 1996, p. 24)

This attempt at poetic freedom in cinema is inseparable from a series of technical features which have come to distinguish what Chatman calls Antonioni's "mature style." Features such as striking montage, dead time, elliptic dialogue and obsessive framing play a large part in the attempt to create poetically powerful "affective moments" in his films. Such poetic freedom claims to work through images whose task is to challenge our sense of order and the assumption that this is more "real" than a more chaotic alternative. At one level, this implies that we need to learn a new way of looking at films whose "meaning" is displayed in novel ways. But, on another level, it implies that they operate on a highly emotive plane through images which shock and displace us as we stutter in our attempt to know them. Their aim is, therefore, both creative and pedagogic, by preparing the audience for a "new visual challenge" (Chatman, 1985, p. 42), testing both patience and memory (Nowell-Smith, 2008, p. 199), a challenge which implies that we have to examine the ways in which narrative conventions are consistently and continuously set up and disappointed. This examination involves a number of stylistic features, the most obvious of which is montage.

The space produced by montage involves "both an interaction between representations and a shock" (MacCabe, *op. cit.*, p. 59), and is therefore the space of a creative stutter which results from the fundamentally performative nature of language (Deleuze, 1997, p. 107). For Deleuze, when we are confronted with both the exhaustion of the given and its opening onto the unknown, we attempt to refer what we see to the representative schema which we already know. This is disrupted, however, by the new image, which forces us out of this zone and into new connections. These connections, in turn, provoke new attempts at codification, and so on, disrupting the sense of a seamless, unproblematic "real" in cinema and, indeed, in thought. Montage disconnects the eye from a particular perspective and introduces the possibility of a multiple gaze from any point whatsoever (Marrati, *op. cit.*, p. 38). It also illustrates how relations can exist between the disparate.

For Deleuze, montage is the act of composition or assemblage of movement-images. It is "the operation which bears on the movement images" and is equated with a whole which is the image of time (Deleuze, 2005a, p. 30). Time here is represented in a necessarily indirect way by movement in the image, but the time in question is not the homogeneous or mechanized time measured by action and movement. On the contrary, montage connects the static image in the frame with the whole outside it and to the intensity of a-temporal duration rather than the extensive form of chronological time (Deleuze, 2005a, p. 31). Rather than simply

disturbing sensorimotor links, these images are able to create links with other forces of "the earth itself," which opens thought beyond movement into the realm of pure duration (Marrati, 2008, p. 62). This is largely because the image is able to convey aberrant movement which is never entirely in the present: the image we see is haunted by a past and a future which do not follow logically from what we see now, giving it a "temporal density" for Marrati (*op. cit.*, p. 68). When made to stutter in this way, images become affective and intensive, breaking free of the usual syntactic flow of well-known words, thoughts and images. The stutter works through this connection to the whole, by introducing the new into an existing scheme, forcing us to stop thinking automatically and start thinking creatively. This is why a stutter is impossible whenever cinema tries to be "seamless," as in classic cinema, for example.

Hence, montage is much more than the product of some innate narrative, and the power of thought does not depend on such an internal content. Indeed, the authorial intentions of a director like Antonioni cannot be bounded by them, and may only appear in retrospect in any case. As Stanley Cavell argues (1979, p. 31), the aesthetic possibilities of a medium are not givens, and the system in question is essentially open rather than closed. While it is clear that thinkers are routinely (and, often, abusively) reduced to their concepts, it is not obvious that the film as object can be reduced to its director. Cinema may be most interesting when it levels the relation between ourselves and the world:

> First, movie performers cannot project, but are projected. Second, photographs are of their world, in which human beings are not ontologically favoured over the rest of nature, in which objects are not props but natural allies (or enemies) of the human character. (Cavell, 1979, p. 37)

Rather than a fixed or even reductive view of cognitive reaction to film, this levelling raises the possibility that people and world are bodies which are genuinely and creatively changed by an encounter at the level of a common materiality. In this way, Antonioni's images refuse to fuse with the real, forcing us to seek meaning elsewhere than in such a simple correspondence. Deleuze also believes that the issue of our relations with industrial production lies at the heart of our experience of modernity, and that we need to interrogate the potential of change and our relation to it:

> Modern life is such that, confronted with the most mechanical, the most stereotypical repetitions, inside and outside, we endlessly extract

from the little differences, variations and modifications. Conversely, secret, disguised and hidden repetitions, animated by the perpetual displacement of difference, restore bare, mechanical and stereotypical repetitions, within us and without us. (Deleuze, 2004a, p. xviii)

In particular, he raises the question of how a truly industrial genre such as cinema might deal with a relation between repetition as the production of the same and repetition as the production of difference by referring both back to the operation of time. Cinema is interesting in this regard because of its particular relation to time and because time is an economic problem insofar as capital is dependent on the "appropriation of the time of others" (Harvey, 2010, p. 199). The creation of surplus value and its return on investment both require the speculative transformation of time to take effect; hence the essentially economic value of the race against time in film.

This reflects a certain metaphysical abstraction which some commentators have identified in late capitalism. Time itself, when seen as a guarantor of dividends, becomes a commodity to race against, even bought and sold, forming the repetitive basis of our economy and our relations with each other, colonizing even the future (Giddens, 1999 in Adam, 2003, p. 72). If we are, therefore, literally living on borrowed time, as Parikka (2011) suggests, being free means having control over it (Hess and Paltrinieri, 2009, p. 56). The time borrowed, however, is heterogeneous, meaning that it agrees with a logic of difference and abstraction. Labour is measured in temporal units, and the brands, products and affective relations it produces are the increasingly individualized commodities of "metaphysical capitalism" based in the profitability of difference and the "neo-commodity [which] is itself a virtual" (Lash, 2007, p. 9). The neo-consumer, in turn, is subjectified to maintain market relations rather than simply acquire things, involved in producing possibility instead. The affective consumer has agency as a creative relay of bio-technological or bio-informational capital, and is thus a key biopolitical player (Toscano, 2007, pp. 74–82). Antonioni's desire to remove action from his films, replacing pace and suspense with slow "dead time" shots, directly subverts this economy of the moment. It also forms part of creative practices which his particular approach to filmmaking helps to exemplify.

Antonioni – the practices

In addition to his films, Antonioni's own practices can teach us something about creative processes. The director's statements, interviews and

occasional writings are noteworthy in this regard because of the "experimentalist ambition" of this quasi-ethnographic body of work (Williams, 2008, p. 57). Antonioni asserts, on the one hand, that creative acts escape our will, and, on the other, that experimentation and artistry are synonymous (Antonioni, 2003, pp. 107, 136), and I want to examine what Antonioni means by returning frequently to the role of intuition and chance in his practices. If a creative stuttering requires a material encounter, do Antonioni's practices provide examples of how this might work, with lessons for creativity in lifelong learning?

Encounter

This encounter implies that we allow matter to affect us for creativity to happen. In his discussion of "diagrams" in Francis Bacon's artistic practice, Deleuze provides a particularly useful analysis of the materiality of this creative process. All thought, be it in the form of art, science or philosophy, "is always confronting chaos" in different ways, but art's role is to express it in concrete ways (Deleuze and Guattari, 1994, p. 197). The role of the artist is, therefore, to connect with matter by engaging in acts of co-creation with the vital and autopoietic forces of immanence (Ambrose, 2006), enabling what Tom Conley has called a "critical transformation" (Conley, 2011, p. 173). This transformation is creative and goes beyond an awareness-raising exercise, Deleuze argues, by constructing a "diagram," or an abstract pattern of a real situation which operates as a pilot of that situation. It is, therefore, able to express and produce power relations (Deleuze, 2003, p. 234), but it also provides a means of working directly on the nervous system through the sensations produced by this encounter (Deleuze, 2004b, p. 66). This leap from creation to confidence is an important one in the lifelong learning context, where creativity implies an ethical dimension which challenges the culture of distrust (for teacher educators): only by "rupturing the predetermined notion of the possible" and by continuously distrusting the idea of possibility itself can we actually create, destroying mundane imitations and moving "beyond fear" (O'Sullivan and Stahl, 2006, p. 153). However, the main promise of such objects for education research and practice is their potential to escape a signifying regime already saturated with cliché. Cliché freezes space and time by removing an image of reality from its context and its virtual, durational richness (Satter, 2012). Avoiding such clichés implies an encounter with a real world of sensation in which we have little choice but to believe.

   The challenge implied by this is that only experimentation can subject given elements to a diagram which itself is not given by experience.

Thought, for Deleuze, is synonymous with such experimentation with experience:

> Thinking is always experiencing, experimenting, not interpreting but experimenting, and what we experience, experiment with, is always actuality, what's coming into being, what's new, what's taking shape. (Deleuze, 1995, p. 106)

Without this shock from outside, art, science and philosophy are unable to avoid the ossification of pre-established paths, practices and ideas. Instead, the cliché must be overcome by leaving chaos on the canvas as a continued material threat to the temporary or provisional order (Radjabi, 2008).

Primarily, as we will see, this means increasing the role of chance in the artwork. For example, in painting, the movements of the hand no longer depend on will or sight, and are therefore "blind" (Deleuze, 2004b, p. 101). Arguably the most striking result of this "blindness" is the way in which Bacon's portraits are literally de-faced by scrubbing, brushing and wiping to remove their signs of "faciality." For Deleuze, this allows Bacon to destroy the face as a concentrated image of subjectivity and by this process activate an awareness of deeper relations between the image and ourselves. For Deleuze, under the right (cinematographic) conditions, the attributes of the face (a concentrated form of subjectivity) can be detached from the face itself. This draws our attention to the ways in which anything, in principle, can express these attributes (Marrati, 2008, p. 41). In effect, by removing traces of the face, we are able to see beyond signification and subjectification towards a very different external world of objects in constant transformation. The static decomposition of characters such as Sandro in *L'Avventura* can be seen in this light, as character, frame and scene all fade away, a point I'll come back to later.

This aspect of artistic practice is particularly important to Deleuze's wider philosophical perspective, which is consistently critical of the unifying "image of thought" mentioned above. The differing senses and sensations attributed to subjects cannot actually be imputed to such a unified self-consciousness or, indeed, its capacity to reflect on mental representations in thought. These modes of thought merely reinforce existing ways of thinking, and so sensibility must be liberated through a constant innovation. For Deleuze and Guattari, this means that we must undo linked propositions, and identify their specificity by separating them from their psychological and sociological settings. Thought can,

thus, be shown to produce something interesting when it encounters the infinite movement of chaos and replaces the supposed paradigm of truth with an immanent power of creation (Deleuze and Guattari, 1994, pp. 139–140).

The importance of such *interesting* encounters for education is clear for Jon Roffe. If education is concerned with movement, growth and change, then there must be "a moment of de-individualization" and creation of "new ways of being in the world" (2007, p. 43). For Davies (2009, p. 627), this initiates not just a new aesthetic but a critical and creative "politics of becoming". Moreover, Deleuze feels that this artistic activity has ethical implications for the attempt to escape the constraints of the given. In order to avoid becoming "emptied and dreary bodies" (Deleuze and Guattari, 1994b, p. 178) – a good description of many of Antonioni's characters – a careful, experimental dismantling of forms of organization needs to happen. This experimental encounter with difference is vital, because sensation cannot occur until a connection is made with something which is not currently present to us.

Preparation

Experiment requires preparation, and Antonioni was seen as a particularly controlling and even manipulative director, because preparation was, for him, a vital part of the creative process. There was an obsessive, controlling and absorbing approach to each film which, for Antonioni, involved a heightened lucidity (Antonioni, 1960a). Shooting in this way involved personal preparation of a quiet, intense sort, setting up each shot optimally in order to produce the desired effects. Despite seeming "slow and pedantic" (Antonioni, 2003, p. 20), he insisted on regularly spending time alone on set at the start of the shooting day, when the set would be cleared of other people so that he could literally wander around it and try to get a sense of what was to be done (Antonioni, 2003, p. 28; Ebert, in Antonioni, 1969a). The resulting frames are "meticulous" and "fastidious" (Williams, 2008, p. 47), and the films are "expertly joined together" (Rascaroli and Rhodes, 2011, p. 1) with the concentrated skill of a still life.

Paradoxically, perhaps, being "ready to understand" reflects Antonioni's belief that creativity is essentially a process of relinquishing control in an attempt to be "authentic". Authenticity, invention and lies become indiscernible, he argued, when the latter are "a reflection of an authenticity yet to be discovered" (Antonioni, in Cottino-Jones, 1996, p. 61). Authenticity involves undermining one's preconceptions,

because there is "something insincere or artificial" about an image that one has thought of.

This insincerity can be avoided by relinquishing control over images by a deliberate effacement of cliché, as we have seen, through the operation of a diagram. Hence, a lack of control may be both central to the creative act and indicative of a valuable research object:

> It would be an interesting project to identify how specific artists incorporate this lack of control "into" their practice, or simply, how they contact and somehow "use" that which is outside them "selves". How, for example, they might mobilize chance (and perhaps error) in the production of something new. (O'Sullivan, 2009, p. 255)

This implies a double understanding of, in the first instance, the physical laws associated with events (cause and effect) and, in the second instance, an acceptance that each event is singular and therefore irreducible to interpretation or prediction. This double understanding puts events as such beyond guidance and entails abandoning "the desire to control the flow of events" (Williams, 2000, p. 217). Crucially, however, O'Sullivan describes an "incorporation" of a lack of control and a "mobilization of chance", rather than a complete loss of control. Doing so, for O'Sullivan, means that chance and error are exploited through the sort of intense, silent preparation described by Antonioni, which allows the results of improvisation to be expressive rather than repetitive.

O'Sullivan's analysis highlights several aspects of the diagrammatic production of something new which help understand Antonioni's practices as a reflection of wider creative work. Beyond creative products, an examination of two linked creative gestures is needed to understand the creative process as a way of actualizing matter diagrammatically. The first of these gestures is the ability to work with a certain lack of control by making contact with that which is "outside", notably chance and error. The second is the ability to mobilize the result of this contact in the production of something new, implying that an encounter with powerful sensations demands a certain discipline.

Improvisation

Filmmaking, for Antonioni, was a way of life in which each moment was "a new experience" (Antonioni, 2003, pp. 16, 69). Films started in a "confusion of ideas" (Antonioni, 2003, p. 145) which needed time to organize themselves. As such, filmmaking was a sort of continuous

search in which he was fond of downplaying the role of directorial technique:

> If you ask me what directing is, the first answer that comes into my head is: I don't know. The second: All my opinions on the subject are in my films. (Antonioni, 1960a)

In interviews, rather than discuss technical discipline and intention, he preferred to stress the role of improvisation, and particularly instinct. His technique was "wholly instinctive" and "never based on a priori considerations" (Antonioni, 1969b). He claimed to start from the assumption that current techniques had been exhausted (Antonioni, 2003, p. 21), and that his films were "documents" built on "flashes, ideas that come forth every other moment" rather than a coherent set of plans. He refused to speak about authorial intentions and felt unable and unwilling to analyse any of his works before their completion (Antonioni, in Cottino-Jones, 1996, p. 91).

The improvisation required by such an "instinctive" approach became increasingly important to Antonioni with *Il Grido* (1957) and the later films, becoming a guarantor of originality and even a sort of objectivity: "I always have motives", he admitted, "but I forget them" (Antonioni, 1969b). He felt unable to say whether his stories had any correlation to the world before they were told:

> Today I still find myself at this stage, even if I am nearly finished filming *Blow-Up*. To be frank, I am still not completely sure of what I am doing, because I am still in the "secret" of the film. (Antonioni, in Cottino-Jones, 1996, p. 91)

Keen to work "in the secret" of the film itself, on set there were constant attempts to allow improvisation to shape the film by working with the terrain and its contents: a shock or encounter between the set, the cast and the director produced the best work, he felt (Antonioni, 2003, pp. 41–42). Hence, despite using extremely detailed scripts, Antonioni liked to shoot unprepared for what was to be shot, in the documentary spirit. For Williams (2008, p. 52), the (later) films are marked by a "potent 'there-ness' [...] contaminated by doubt and instability", making them all like "pseudo-documentaries". Hence, Antonioni claimed never to think ahead of the following day's shots at all. "If I did", he claimed, "I'd only produce a bad imitation of the original image in my mind" (Antonioni, 1969b). The argument was that the actual practice of shooting modified

any plans made beforehand, since "it's only when I press my eye against the camera and begin to move the actors that I get an exact idea of the scene" (Antonioni in Lyman, 2007). The experience of shooting a scene could, therefore, challenge any plan made beforehand:

> Isn't it during the shooting that the final version of the scenario is arrived at? And, during the shooting, isn't everything automatically brought into question – from the theme to the dialogue itself, the real merit of which is never revealed until it is heard in the mouths of the actors? (Antonioni, 1960)

Consequently, the film is seen as an emergent whole rather than a series of intentions to be acted upon, and Antonioni frequently refused to abstract the completed film from its development, pointing to the film itself as the basic unit of analysis. The traditional separations between stages in filmmaking, he felt, have value for everyone who participates in the work except the director, for whom the separation is a purely theoretical and unhelpful one.

This focus on the continuity means that Antonioni's ideal form is the desert, towards which all his characters tend, often both literally and metaphorically. At the limit, the ideal shot would be completely empty, compressed to its essence by the gradual amputation of all extraneous material (Antonioni, 2003, p. 66). This is why, in film after film, the character and their face disappear alongside the action (through suicides, obscure deaths and untimely disappearances), and the individual merges with the nondescript any-space-whatever depicted in the frame (seascape, riverside, industrial landscape). Here, the space itself, a familiar area which has lost its familiarity by being disconnected or emptied (a crossroads, a stairwell, an apartment, a park) is pushed "as far as the void" in its own movement of becoming (Deleuze, 2005a, p. 123). Deleuze describes these "any-space-whatevers" as spaces defined by parts "whose linking up and orientation are not determined in advance" (Deleuze, 2005a, p. 123). Because they are undetermined, they can be linked up in an infinite number of ways. These non-Euclidean, Riemannian zones are not connected by linear logical links but, rather, segmented by shifting affective connections which are not bounded by linear space at all. The disorienting, disjointed space of Ricardo's apartment in *L'Eclisse*, for example, sets the tone for the whole film and echoes particularly strongly in the final montage of disparate shots of the EUR district. They are a set of coordinates which eliminate action and therefore retain a pure potential to be something else. The

great power of this moment is its retention of the potential to become something else.

Chance

For O'Sullivan (2009, p. 255), this intensive, indivisible understanding of the nature of the artwork as continuous practice signals an awareness of the importance of chance and accident in creativity. He argues that this represents a means of distinguishing art from the mechanistic "production of objects". Random occurrences are not accidents that happen, but, rather, events that constitute art ontologically. Hence, Antonioni's aim was to compose films with respect for the wide range of elements, each of which played a part – not just actors – and the potential of every element to contribute to the overall result (Antonioni, in Brunette, 1998, p. 11). While this treatment of actors means that characters can seem alienating, it signals a challenge to conventional "protestations of 'human warmth' " which, according to Massumi, betray "an inability to feel an ardour of a different kind" (1992, p. 470). Sensation is extra-human and comes from without, and so a profound creative potential exists in a gaze which sees the world as affective becoming rather than being, extending our empathy to the world itself rather than those we choose to recognize as being "like us". Antonioni's goal was to link this wholeness to a widened sense of authenticity, where the autobiographical is broadly contextualized in a material setting by intense, spontaneous action (Antonioni, 1960).

Specific examples of this include the old fisherman who seems to wander onto the set during the storm in *L'Avventura*. The old man actually happened to live on the island and was "discovered" during shooting, and Antonioni, who simply "found him interesting", adapted the script accordingly (Cameron and Wood, 1970, p. 26). The chance encounter with the fisherman during the shot is even reproduced as a chance encounter in the narrative, providing the viewer with "the keys to the inner sanctum of [Antonioni's] art" (Solman, 2004). The oddness of this scene, reflected in the eerie gaze of the photos on the wall staring back at the viewer, suggests a formal role for chance in this part of *L'Avventura*'s narrative. Coupled with the imminent forgetting of the search for Anna, the scene incorporates the haphazard into the heart of the film's structure, narrative and style. Three central themes in Antonioni's work are once again underlined: the attempt to use irrational, material elements in narrative to disrupt mechanical or conventional narrative devices; the repeated reminders that the film is a construction from a subjective viewpoint; and the self-referential "inner narrative" of the film

as an interrogation of the gaze. The scene is, therefore, indicative of the creative dynamic between intense preparation and improvisation. This particularly true of *L'Avventura*, where the film's troubled process contributed to its final success:

> While I was filming [*L'Avventura*] I lived through five extraordinary months. Extraordinary because they were violent, exhausting, obsessive, often dramatic, distressing, but above all fulfilling [...] We filmed without a producer, without money, and without food, often risking our necks at sea in the storms. (Antonioni in Roraback, 2005, p. ix)

Error

It is perhaps inevitable in such conditions that "mistakes" were made. But even "errors" could contribute to the film's authenticity, and the director's role is to deal with this kind of "struggle" (Antonioni, 2003, p. 19). Antonioni sought to remain true to what the irrational is trying to express, and this led to techniques to capture "errors" in the moments of dead time (Antonioni, 2003, p. 93) for which his work is famous. These moments are particularly revealed in "errors" or unguarded moments:

> I believe that these little failures, these empty moments, these abortions of observation, are, all things considered, fruitful. When we have put quite a few of them together – not knowing how, not knowing why – a story emerges. (Antonioni, in Cottino-Jones, 1996, p. 59)

Once again, Antonioni contends that the creative process must negotiate irrational events which can prove productive, sometimes retrospectively (Antonioni, 2003, p. 124). It reminds us of the relative unimportance of individual details, even of individual "mistakes".

These "errors" contribute to a fragile balance which is all the more interesting and expressive because the practice of filmmaking has joined the situation which is filmed. This composition establishes reciprocal relationships between people and objects, as well as between the rhythms of the dialogue and of the sequence as a whole (Antonioni, 1960). It also lies at the heart of Antonioni's creativity, and is evoked and developed through improvisation, chance and error. I think what has been said so far is suggestive of the sorts of practices that creative teaching in lifelong learning might aspire to, but the question which this invites is their precise place in lifelong learning. I want to suggest that an answer lies in the crucial field of ethics.

Part III
Ethics

Discussion of ethics is rarely linked to creativity in lifelong learning, but I am interested in how creative practices might help develop not just creative, but also ethically desirable practice in lifelong learning. Initially, I want to problematize the issue of professional ethics in life-long learning, before turning to ways in which practice might provide examples of creative, ethically acceptable practice for the sector.

5
An Ethics of Creativity for Lifelong Learning

Deleuze's philosophy of events is central to this position, because it holds that ethics can and, indeed, must be understood in quite practical ways, and is not reducible, for example, to inferences about the way desire works to produce the real (Buchanan, 2011). This practical perspective lies at the heart of Deleuze's Spinozism, and is inseparable from the bold insistence that affective change is a material and embodied phenomenon which expresses the dynamic movement of life itself. It is, therefore, anchored in the view that we do not know what bodies can do because we do not – and thankfully cannot – ever know the full range of connections of which they are capable. What matters to the Spinozist is not the false distinction between right and wrong, but the very real distinction between good and bad (Deleuze, 1968b, p. 233).

Initially, as Mercieca (2011, p. 55) asserts, this means that, that although we do not know the capabilities of teacher-student bodies, their mutual engagement is always an enhancement. It is the very unpredictability of the effects of such encounters which, according to Mercieca, contributes to their creativity. A problem for Deleuze, though, in establishing an ethical position is that he cannot actually assert that one thing is better than another, since, for him, things as such do not exist and nothing is therefore good or bad in itself (Patton, 2007, p. 3). Moreover, undecidability alone is often seen as making ethical demands (e.g. Clark/Keefe, 2012), but it cannot guarantee creativity. Indeed, while it certainly raises ethical issues about whether certain becomings might be more or less desirable than others, undecidability provides no guidance as to how judgements might be made or what action might be envisaged to discourage undesirable behaviour.

But if we traditionally establish the identity of things by comparing them with other things, and seeing whether they match or not, Deleuze's

twofold challenge is productive. First, while we are carrying out this comparison, we are never actually looking at the things themselves, only at the *set* of things (the set of this thing and another as a set with something in common, i.e. (non-)similarity) we have created as a category. Second, while we are doing this comparison, we miss precisely that which is most interesting about the way things are, namely their specificity, capacity for change, difference rather than similitude. For Deleuze, the way to avoid this reduction of our capacity for engaging with the world is to adopt a higher or transcendental empiricism which eschews similarity and actively seeks intensity, singularity, and ultimately difference in and for itself. This, for Deleuze, is how we become worthy of events.

But can teacher educators in lifelong learning work according to such an immanent ethical or ethological framework? Can we avoid relying on the contingent and anthropocentric reasoning of moral values? Can we be worthy of pure difference in everyday practice?

The moral status of creativity

The precise moral status of creativity is open to discussion. It is often argued that creative products and the processes leading to them need to be governed by ethical standards, but, as Cropley (2001, pp. 2–6) suggests, the "production of novelty" is ethical in itself, making any ethical regulation of creativity redundant. The first implication of Cropley's view is that ethical behaviour can stem from creativity itself, undermining the idea that ethical practice is a matter of applying standards to practice. Second, we have also noted how, in today's complex educational world of rapid change, the ability to repeat is also redundant. Difference, not repetition, must guide practice, and educators have an *a priori* ethical responsibility to respond to this demand by avoiding the tendency to repeat by application.

Linking these two points, my analysis of creativity has identified a confusion between creativity and productivism. I am seeking to replace this confusion because it implies a kind of repetition which hinders creative practice in at least three ways. First, productivism only values the products of creativity to the extent that they comply usefully with current ways of thinking and doing. This allows conditions to be reproduced, effectively countering creation. Second, these products themselves must be reproducible to be considered useful, and they can only be exchanged by being iterable. Third, these products indicate a tendency to perpetuate a certain double-speak which promotes

reification in the discourse of change, once again undermining creativity with repetition.

However, even if discourses of creativity work in this way, this does not explain their relation to the ethical claims made by and for the lifelong learning sector. Compared with guidelines from the rest of the UK, the language of morals and values in teacher education is relatively low key or "cold" (TLRP, 2009, p. 34). Yet a growing interest in ethical practices is noticeable in lifelong learning, which is marked by strident promotions of the intrinsic moral value of the sector, its practices and its products. Professionalism generally is said to involve "an ethic of altruism" (Lea *et al.*, 2003, p. 60). Teaching as a whole in lifelong learning is basically seen as an ethical business, equated with aspects of the good or worthwhile life (Edwards, 2010, p. 146) and granting the sector "a sort of moral duty" (Hyland and Merrill, 2003, p. 32).

I have argued (Beighton, 2014) that the motives of this occupation of the moral high ground are troubling. Complex ethical issues certainly develop from the increasingly technical focus on learning as a field of intervention, where learning becomes increasingly responsible for wider social problems as it is "educationalized" (Fendler, 2008, p. 1). Fast throughput and short capital outlay are considered necessary components of increased speed, which itself is "an unquestioned and unquestionable goal" for Adam (2006, p.124). Are "ethical" practices in lifelong learning promoted for their value on genuine ethical grounds, or are they an unthinking application of the assumed benefits of such goals with little actual ethical content or even forethought?

This ethical vacuum should not surprise us. As Terence Lee (2014, p. 4) reminds us, rather than moral or legal direction, effective governmentality has always relied on the twin pillars of cultural control: expedience and the effects of the ominously termed "public pedagogy". This translates into the demand for standardized life forms. Teaching is "a noble profession" which "develops our very human being", and is a profession which "teaches standards, lives by standards, and requires standards" (Crowther, in IfL, 2013, p.14). Such standards are set and policed in the UK by the Education and Training Foundation (ETF), officially registered in August 2013. The ETF expects, unsurprisingly, that lifelong learning practitioners "act with honesty and integrity" and "maintain high standards of ethics and professional behaviour in support of learners and their expectations" (ETF, 2014a).

Standardization is not the silver bullet it seems to professional (in)competence, least of all from an ethical point of view. The issue, however, is not simply whether standards should be used in principle,

but, rather, the practical matter of identifying exactly which standards, how they should be deployed, and by whom. If standardization implies the "retooling" of teachers with a standards-based model, this belittles the profession by denying its complexity (Sachs, 2007, p. 14). Hence, rather than provide pragmatic guidance for new teachers, the standards espoused by such policy imply more than a simple performance target, demanding that professionals cry their worth from the rooftops. Standardization shifts from the practical to the ethical field, and on the way becomes an idealization which claims to "stand outside and above" professional performance to measure its value (Stanley and Stronach, 2011, p. 3).

This seems to echo the "moral authoritarianism" discerned by critics such as Ecclestone (2002, p. 23) and Furedi (2004), whereby an infantilizing pessimism about individuals' ability to cope with everyday life accompanies a desire to control even mundane risk at any cost. For example, critics suggest that learning risks being eclipsed by an instrumental use of assessment (Torrance, 2007; Jones, 2010), arguing that the minutiae of assessment approaches are inspired and controlled by a desire to infantilize and thereby control the masses. If research on the demonstrable impact of teacher education is weak, contradictory and inconclusive (Smedley, in IfL, 2013, p. 32), we might look towards this development for a cause.

However, this does not just risk undermining effectiveness and creativity, but even appears anti-ethical. This is because a view of the good life often implies a commitment to individual autonomy and the active promotion of the view that individuals should be able to exercise independent control over their lives (Benade, 2012, p. 340). The development of assessment processes that tie the learner increasingly into their own regimes and expectations would be an example of how lifelong learning is deliberately encroaching on learner autonomy and the ethical right to the self-determination of (most of) our actions.

This simplifies the problem somewhat, and the good life of autonomy itself reflects a desire for individual consumption. And professional bodies and the public might understandably argue that their role is precisely to guarantee effective practice, responsibility, public safety and democratic functioning by governance and regulation, defending their own role as ethical guardians of lifelong learning. This opposition, however, masks a deeper issue, namely that of the link between discourses of creativity and ethics. Creative change would, by definition, overturn the moralistic arguments which justify stasis, denying that professionals can "return to the groove" or simply be updated, upskilled or re-equipped for the

future, although an extensive literature exists to promote precisely this (cf. DFES, 2004; UCET, 2005; Kendall and Herrington, 2009; Vincent-Lancrin, 2013, *inter alia*). Current conceptions of what constitutes ethical conduct according to rule-based systems would also be undermined because of their imbrication in the development of very particular types of control masquerading as quality enhancements. Instead of enhancing quality, self-judgement according to proliferating standards reflects the impossibility of closure or completion which underpins lifelong learning. In the absence of traditional methods of coercion, a culture of debt with its own very particular features is developing as a means of control.

Debt

When Nietzsche asserted that the task of higher schooling was to turn people into machines, he felt that this dehumanization involved using boredom to inculcate the concept of duty (Nietzsche, 1998, p. 57). Nietzsche's model is the civil servant, and behind his scorn for functionaries lie real questions for lifelong learning if we take seriously the idea that duty (and the desire to fulfil it) can be instrumentalized as a management tool. The hypothesis that debt is a psycho-social phenomenon is instructive because it indicates relations between morality and economy which seem highly apposite to professionalism in lifelong learning. He asserts (Nietzsche, 1996, pp. 51–54) that guilt, as a feeling of personal responsibility, originated in the primordial relation between buyer and seller. As soon as one measures oneself against another, a scale is assumed according to which this measurement can take place on the basis of a quantifiable equality. This equality allows prices, values, equivalents and exchanges to be determined, but it also defines the ways in which principles of cognitive and economic astuteness are valued as marks of superiority and even subjectivity: man is defined as the measuring animal capable of meting out justice to a populace deemed to be equal before this law of the quantifiably similar.

Debt arises when individuals become beholden to a community which offers them protection from crime and violence under the aegis of this equality. For Nietzsche, whatever the advantages of such comforts, they rely on a reaction to and a denial of difference, which is actually subjugated when it inevitably threatens these comforts. An interesting twist also occurs when society takes on the role of justice, and especially the punishment of criminals. Punishment of crime supposes an economy of guilt, redemption and, ultimately, grace, ordained by a sovereign justice

which itself is beyond law, since the granting of redemption places the accused in a position of an infinite debt which can never be repaid.

Recognizing that one is indebted in this way to a hierarchy is the basis of capital's hold on the neoliberal subject, for Maurizio Lazzarato (1996; 2009). Debt mediates the transfer of responsibility from public to private spheres, since it is through debt that everyday gestures become a series of calculated responses to the question of how to reimburse what is owed. On this analysis, it matters little whether the debt is financial, moral or otherwise: its power relies on the fact that its exercise is direct. Relations between people are no longer mediated by the physical products of their physical labour, and debt takes the place of these objects in the form of a direct relation between indebted and creditor, and the promise to repay (with interest), which binds them.

The relevance of this apparently abstract position is made clear by Matthew Clarke (Clarke, 2014, p. 595), whose examples describe (Australian) education policy objects as "sublime" in the sense that they occupy a (Lacanian) empty place. As such, they simultaneously compensate for and cover over a fundamental lack. To do so, he argues, they depend on the symbolic authority provided by individual establishments' officious discourses, but also on "fantasmatic desires for harmony and totality". For Clarke, they are elusive, untouchable and inestimable, serving as ultimate horizons which fascinate and capture us. Thus, the promise to reimburse debt tomorrow underpins more than mere financial speculation, since it initiates and perpetuates a persistent sense of guilt for the debtor. Economic processes create new subjects in this way, changing rights into credits: the incitement to take out life insurance substitutes a right to retirement and its benefits; the right to take out a mortgage substitutes a right to housing and its security; the right to contract a (student) loan substitutes a straightforward right to participate in further or higher education. Well beyond Nietzsche's criticisms of 19th-century German bureaucracy, the impact today is that both young and established employees are currently manoeuvred into a "permanent state of deficit" towards a present and future economy (Fenwick, 2013, p. 361).

An analysis based in Deleuze's work, however, would stress that such authority works in a more positively reciprocal, even creative, way, rather than through lack: sovereignty is always an active force. Consider, for example, the possibility that lifelong learning works as a concept because of a contract which is established between practitioners and the sector. Contractual agreements are increasingly used to manage corporate relations, using techniques which apply to many practices of

professionalization in education (Krejsler, 2007, p. 481). Such contracts, Krejsler argues, are staged to articulate the individual's creativity and initiative and commitment to organizational goals. In lifelong learning's recent history, the contract has been sealed by certification, which exists to both limit the boundaries of professional identity and record the quantifiable limitations of the deal. This record includes initial qualifications defined in terms of credit value and level in essential core employability skills (such as English, Maths and ICT, for example), both of which establish accessibility to the profession, its status, and its continuous processes of professionalization. These include a given quantity of CPD, which establishes one's right or licence to practice, ensuring that professionalism remains, officially, a tick-box binary of yes/no or in/out. However, whether the contract is technically mandatory or not is of less importance than the unchanging discourses which naturalize its rationale. If, as Michael Apple argues, democratic professionalism should "demystify professional work and build alliances between teachers" (in Sachs, 2003, p. 27), then the apparent paradox between qualitative change and its quantitative measurement needs to be separated from the mystifying language of standards, criteria, and their ethically bland declarations of values. I'll return to this later, in order to link this issues with that of professionalization.

Benchmarking, for example, is a common-sense, time-bound, norm-referenced technique for ensuring that success is technically unattainable. Used as a measure of professional quality, the time between the setting and checking of such objectives is not meant to be open, substantiating instead "heavy handed" forms of control (Williams, 2011b, p. 17). Judgement on these terms implies infantilization because it grants the power of judgement, punishment and gratification to a worthier, more responsible Other. The abstract and depersonalized language of performativity used as its measure also guarantees that teachers' maturity is questioned and their judgement displaced (Mercieca, 2011, p. 44). For Lévi-Strauss (1955, p. 465), we are wrong to believe that forms of contract and consent are secondary to social organization. But a basically coherent anthropological model which infantilizes subjects in the face of punitive social law breaks down into absurdity when gratification is not also handed out in the same way. Subjects, he suggests, are mutilated when they are treated in this manner: infantilized for the purposes of punishment, they are responsibilized for those of gratification and success, demanding that they be both adult and child at the same time. Transcending these operations is a system of judgement whose goals are vague enough to be forever

out of reach, ensuring that learning is truly lifelong. Stretching the field of what is understood by "professional" in the sector (cf. Marcus, 2012; Robinson and Rennie, 2012), individuals are judged on the basis of criteria according to which they will necessarily be inadequate. This does not just reflect a common fear of failure in teachers and teaching: Lefstein (2013), for example, describes the negative impact and blame-allocating function of some inspection regimes. It also expresses the impossibility of what Patsarika (2014, p. 529) calls "caring, casual and creative relations of trust".

This demand for adaptation echoes a well-known but troubling pseudo-Darwinian discourse which naturalizes and even idealizes competition. Exemplified by the Faure report, above, its claim is that ceaseless learning is necessary to "survive and evolve" (Faure, 1972, p. 157), and that consequently only the fittest are accepted. But the struggle is endless: teachers are constantly reminded that their professionalism "by mandate" implies constant improvement (Appleyard and Appleyard, 2014, p. 119), underpinning the view, expressed here by the UK's IfL, that the sector requires teachers to achieve superlative performance levels:

> In order to truly make a difference to the people who need it most, the further education, skills and vocational training sector does not require less qualified practitioners: it requires "super teachers". (IfL, 2013, p. 10)

The IfL has responded to high-level questions about its success as a professional body (BIS, 2012b; 2012d) by passing its responsibilities to the ETF. The Foundation is slightly less forthright than its predecessor, but just as proudly states that its overall ambition includes "[t]o deliver consistently excellent outcomes for learners and employers", promoting a "vibrant sector to employers and national influencers" and raising awareness of its "vital role in rebalancing the economy". The Foundation's current priorities also include "bringing standards of leadership, management and governance up to the level of the very best" (ETF, 2014c). Just as it underpins quality control, this persistent discourse of the world-class "über teacher" intersects with the discourse of creativity in lifelong learning. The moral worth of "continuous improvement" is taken for granted as a way of enabling policymakers like the Department of Business, Innovation and Skills in the UK to be "more flexible, open and innovative". This innovation is "critical to the successful delivery of sustainable and balanced growth across the UK economy", and involves "building

staff engagement and strengthening our leadership" (BIS, 2012e, p. 3). In principle, CPD responds to this need, offering a persuasive discourse of adaptability to these professional and economic demands in the gendered language of construction, competition and power. But, too often in lifelong learning, CPD exists to multiskill rather than upskill, reflecting the "bad jobs" culture of low pay, low status and routine employment. Staff are retrained and saddled with tasks which offer no fundamental difference from the old ones, shifting attention away from poor management and job design and onto employees' perceived unhelpful attitudes (Warhurst, 2011). In this culture, lifelong learners receive a "non-status" as a result of vocational skills which depersonalize and technicize learning, thus barring the way to other, more meaningful occupations.

The normative process of reconfiguring professional ethics in lifelong learning is ambiguous, however, since it both responsibilizes and detracts from its practitioners. Three familiar steps can be identified in this process: homogenization, abstraction and moralization. Homogenization works by first installing a set of criteria which serve as binding reference points. Practitioners are called to admit, accept and overcome their inadequacy before demonstrating their worthiness of the status which has been granted to them as new professionalized individuals. By doing so, they enter a community of practice which protects the organization against innovation: either the community's boundaries are protected by "old-timers" and their fear of displacement (Billett, 2004, p. 116), or it exists explicitly to "control, execute and evaluate teaching and learning strategies" (Crowther in IfL, 2013, p. 13).

Second, this deficit is bounded by abstract terms which describe a profession undeserving of the title. This discourse of "deserving" status explicitly asserts that the judge of such merit will be external to the profession and represented by vague abstractions such as public accountability or (inter)national recognition. This abstraction is further compounded when, with the promiscuity of lifelong learning itself, the spaces of this judgement creep beyond classrooms, workshops and communities to become essentially limitless. The locus of judgement thus cannot actually be defined, making it impossible for the practitioner to ever really know to whom they must demonstrate their worthiness.

Third, this abstraction is moralized by showing that the task in hand – continuous improvement – is effectively limitless. Self-important, grandiose, hyperbolic language is explicitly used to express an expectation of continuous selflessness, extended responsibility and professional

mastery, all of which places the goal of professionalism beyond actual reach and into the transcendent realms of moral judgement.

Following Deleuze's analysis of developments in continuing education, the concrete purpose of such discourse becomes clearer. Within a system based on the investment by individuals in their own capacity to outdo their peers, it is unsurprising to see professionals recruited as the functionaries of a network of blame and control:

> Every category of professional is going to be urged to exercise police functions which are more and more precise: professors, psychiatrists, educators of all stripes, etc. Here we see something [Foucault] predicted a long time ago, and which we didn't think possible: the global reinforcement of the structures of imprisonment. (Deleuze, 2004c, p. 210)

For Deleuze, structures of imprisonment go well beyond prisons and even physical walls. In education, they are reinforced by the view of learning as a series of steps, none of which actually prepares one for its successor. The three mechanisms of homogenization, abstraction and moralization can be understood in relation to this series. A segregative, central sovereignty first installs a category which we are all too eager to recognize and belong to as superior beings (Deleuze and Guattari, 2004a, p. 305). This professional group is thus homogenized by its collective responsibility to a higher power, whose recognition it must "deserve". Responsibility here is defined in abstract terms, such that repayment of the debt is always deferred: it is so hyperbolic that even continuous training and qualification will never meet its terms. Finally, the judges of this repayment are themselves dis-located from any possible real place, and their judgement is exercised from a transcendent moral plane far removed from the ethical considerations of day-to-day practice. In this way, the body actually deciding when the debt has been repaid can never be identified or reached, and so learning must always recommence because the debt contracted can never be repaid (Deleuze, 1990/2003, p. 237). Learners are always starting afresh, called either to prove that they deserve to be where they are, or to suffer accusations of unprofessionalism or its synonyms: incompetence and moral obloquy.

Criticality

There is, of course, a moral position behind this criticism, but attempting to activate Deleuze's position exactly is difficult for several

reasons. Deleuze's criticisms of ways of thinking are more often stated than argued, and explicit references to morality are scant in his work. When they appear, they often do so allusively as part of his preference for ethics. In fact, his own position on ethics is perhaps best expressed through his studies of other authors whose own ethical propositions are also open to much debate (notably Nietzsche and Spinoza). Deleuze and Guattari (1994, pp. 107–108) do indeed vituperate against "[t]he ignominy of the possibilities of life that we are offered" and the fact that we "continue to undergo shameful compromises with it". But this negativity poses problems for any system, challenging the role of rules, judgement and duty in ethical behaviour. These three areas need examination if Deleuze's approach to ethics is to have any positive impact on lifelong learning.

Rules

Teaching well cannot be defined by a list of simple rules (Derrick, in IfL, 2013, p. 24), but for Deleuze all moral notions are suspect when they imply fixed rule sets. For Deleuze, morality is any set of confining rules (Smith, 2007, p. 66; see also Smith, 2003; 2011; 2013a), and he follows Nietzsche in divorcing morality as a system of rules from ethics as a mode of behaviour and thus the expression of a (resentful) way of life. This is because fixed rules of what should be done are necessarily flawed in a dynamic world: normativity can no more be prescribed than objectivity.

Moral judgement, for Nietzsche, is "the favourite form of revenge of the spiritually limited on those who are less so" (Nietzsche, 1990, p. 149). The attempt to moralize stems from *ressentiment*, he argues, and is indicative of a weak or slavish state of which we are all capable. This "slave morality" is the desire to judge all activity according to the same values, according to ideas of utility. This judgement is both malicious and immoral because it falsely asserts that what is good for one is good for another, denying difference and incommensurability (Nietzsche, 1990, p. 151). A moral discourse is thus a "Procrustean bed" because (human) life is always being distorted to fit its demands: life itself – "any diving, gulf-opening, sub- and superordinating energy" – is idealized (Nietzsche, 1998, pp. 64–68). Moral tartuffery, he asserts, is therefore puritanical, not least because of its desire to impose *a* morality across the board, and therefore "a protracted audacious forgery by virtue of which alone it becomes possible to feel pleasure at the sight of the soul" (Nietzsche, 1990, p. 217).

For Bryant (2011a), this has an immediate impact on the way in which ethical practice is codified in rule-based systems:

> If ontologically we cannot presuppose the formal identity of agents across diversity – indeed, if we cannot even presuppose *our own* iden- tity by virtue of the fact that we become new agencies when we enter into new relations – *rule-based* ethical systems are out the window. Or perhaps, less dramatically, rules, criteria of judgement, are *effects* or *results*, not grounds.

Like Nietzsche, Deleuze does not believe that a viable ethical position can rely on idealistic visions of what should be done, but, rather, on what actually happens, seeking a more pragmatic ethical position immanent to practice. His ethics concerns what is becoming, what takes place, and what is new. On this argument, difference (the non-identity which our existence as complex systems of relations implies) cannot be codified by rule-based systems which themselves need to be explained. Even in matters of justice or truth, becoming is "never a case of imitating or repro- ducing a model" (Deleuze and Parnet, 1996, p. 8). In effect, we can only use rule-based systems to regulate ethical conduct by overturning the link between our codes and practice. This is because, as criteria of judge- ment, such codes are not the grounds of practice but, rather, its result. So, although rule-based systems are intended to regulate ethical conduct, they indicate a contingent set of ideal beliefs, such as an ideal, rational subject which remains unchanged over time: a good example of the risk of oversimplification implied by the debate about lifelong learning's supposed emancipatory role. The terms "freedom" and "unfreedom" are evocative, but they are not particularly helpful concepts in themselves, with "free will" itself working as "a mask which can only articulate a static and frozen expression" (Evens *et al.*, 1998, p. 273). Once freedom is identified as a concept with fixed parameters, it loses its actual effect of liberating thought and can actually "facialize" subjectivity and bridle creativity, as we believe we have already become what we are. Relying on these beliefs provides a convenient framework for judgement which transcends empirical situations, but it leaves us powerless when they change and masks their subjective presuppositions.

Deleuze also feels that a respect for the creative process of life can help see more clearly how and why systems of thought can work counterpro- ductively. His moral philosophy is anti-humanist in this sense, because it rejects those attempts which prejudge the encounter of events and mistake the place of the human in them (Williams, 2008, p. 138). This

is already a challenge for lifelong learning, where a liberal, humanist tradition and individualistic folk metaphors such as selfhood are deeply rooted, influential explicators of learning and transition (Fenwick, 2013). The problem with the concept of human selfhood is that it presents itself as an origin or presence from which other concepts are appraised. It is, thus, not one concept among others but a transcendent original presence (Colebrook, 2000, p. 11) which fails to understand emergent properties because of the outside they imply. In fact, notions such as "human" may best belong in the realm of "folk taxonomy", since they rely on notions of speciation which struggle to withstand scrutiny from a bio-ethical perspective (Clark, 1999, p. 45). An anti-humanist stance such as Deleuze's challenges the usefulness of such constructs in these contexts, and looks to networked behaviour instead as a type of extra-human capability. Advances in cybernetics and complex economic phenomena would be good examples of interlinkages which go beyond simple terms.

It is, of course, possible to see these criticisms of rules as a relativistic justification for quietism. When we attack the human subject by depriving critics of the ability to claim ideas such as inalienable human rights, we make a dangerous precedent which also relieves us as individuals of the need to do anything. More pessimistically still, this point of view makes the kind of activist professionalism espoused by some in lifelong learning seem naive and empty. In fact, for Deleuze, the very notion of time organized around action in the present is inadequate, and he consequently denies that ethical action can be based on such simple empiricism (Williams, 2008, p. 173). Williams is right to focus on Deleuze's instance that events demand another time, and the implication is that his events actually take place in some far-off, ideal zone of "pure potential" with no relevance to the here and now. On this view, given the necessity of change and the need to affirm it, "activist" attempts to fix and regulate the future seem nihilistic at heart because they refuse the possibility of change by trying to manipulate the dice throw of chance (Roy, 2004). We are also reminded of the paradox that ethical conduct begins with a modest acceptance of the fact that we are not yet capable of ethical conduct (Goodchild, 1996, p. 208), effectively depriving us of the motivation to choose at all.

However, for Deleuze, morality is not at bottom a question of individual action but of the judgement of Being: morality, he says, is a way of judging our own essence according to values (Deleuze, 1980c). This judgement implies some value superior than Being by which it can be judged, but nothing can be superior to Being, and so a discourse of

judgement, morality and value is necessarily false and even unworthy.[1]
Rules of morality which fail to recognize the essential dynamism of life
are themselves nihilistic.

Deleuze proposes, instead, that the *art* of distributing good and bad
should replace the action of judgement of good and evil. What is good
and bad can be defined by conducting an ethology or study of territories,
behaviours and the pure events which they incarnate. Thus, ethology,
Deleuze argues, is a way of explaining behaviour according to immanent
modes of existence, and it replaces the recourse to transcendent values.
For example, it ensures that ethics surpasses individual beliefs, since
the assumption of "preformed homunculi" is just one of these values
(Ansell-Pearson, 1999, p. 171). Similarly, it does not claim to know the
capacities of a given being ahead of experimentation and observation
(Gatens and Lloyd, 1999, p. 100), turning instead to the territory of
action rather than its *a priori* judgement. This dismantles what might
be seen as a gendered model of creativity centred on agency and unifi-
cation according to the hylomorphic schema criticized by Ingold and
Sauvagnargues, above. Its focus on location against essence can, for
Clark/Keefe (2012, p. 5), challenge the "dominant cynicism" which
partitions the subject as consumer, that is to say, a dividual capable only
of one action.

Ethology states, moreover, that the territories in which we act are estab-
lished less by staking out their physical boundaries than by the behav-
iours which define these territories in affective ways (Beaulieu, 2011,
p. 70). Deleuze and Guattari draw on animal behaviour (e.g. birdsong
or nesting rituals) to show how a "refrain" or simple, habitual gesture
can do this. To become meaningful, these gestures require practice and
repetition, and a study of these behaviours can imply the kind of exist-
ence involved instead of deciding its value before they happen:

> Rather than "judging" actions and thoughts by appealing to tran-
> scendent or universal values, one "evaluates" them by determining
> the mode of existence that serves as their principle. A pluralistic
> method of explanation by immanent modes of existence is in this
> way made to replace the recourse to transcendent values. (Smith,
> 2007, p. 67)

Deleuze is interested, therefore, in the possibility of an ethics derived
from problems defined as "the immanent evaluation of an encounter
of bodies" (Protevi, 2012) or "the inventiveness called for in response to
problematizing events" (Bryant, 2011a). Here, the distinction between

human and non-human is no longer of interest, since what matters is how bodies come together, and what these concatenations enable.

We can test these assertions about judgement and transcendence by applying them to teacher education and what it values. A good example is the discourse of flexibility in lifelong learning mentioned above, where the flexibility in question is an adaptation to given manifestations of change. Change itself is taken to be given, and current manifestations of change are, therefore, a teleological necessity.[2] Our adaptation is judged, along with any "creative" products (new delivery modes, sophisticated ICT, innovative techniques and so on) in accordance with a set of values which are assumed to be given (i.e. the necessity of this form of change, the necessity of this form of flexibility, the impossibility of any other). They are valued if they repeat teacher–learner relations by perpetuating them; hence the metaphors of "retooling" and "equipping" which have been used to describe this sort of training. On this view, subjects of learning are thought to pre-exist change, which is then added to them *post facto* as a hylomorphic, transcendent process which saturates assumptions about learning: notions of shaping or modelling, for example, assume that the individual is passively moulded by outside forces, and those which rely on "interaction", "internalization" or "accommodation" similarly assume a unitary, rational, pre-given individual subject (Tennant, 2009, p. 151). Such illusions of transcendence seem simplistic, but their key effect is to separate us from the power of acting in the world, which grows through affection rather than dressage or acquisition. This limits what we are capable of becoming, fundamentally restricting our freedom.

Duty

In this way Deleuze's ontology maintains a radical openness to the effects, affects, sensations and problems of a very material world. It also draws the ethical conclusion that we have a duty to respect our material condition as inseparable from any other. At the most basic level, the ethical responsibilities of one group cannot be abstracted from those of another, demanding a "charity towards objects and nature" in line with our growing knowledge of complexity (Urry, 2005a, p. 3). Any form of discrimination, violence or destruction of any aspect of the material environment is unjustifiable on this view. Ethology neutralizes all morality, be it calculated, sentimental or cruel, since all three reflect an anthropomorphic perspective "in which the human being maintains its position on top of creation" (Beaulieu, 2011, p. 84). And this can be

understood even from a human standpoint: we cannot fulfil the potential of our own bodies without connecting with those of others. Since this connecting is a mutual enhancement, we cannot talk of exploitation or condescension without realizing that the encounter has been botched by a return to transcendent forms and their supposed hierarchy. And, because its mutual enhancement is dynamic, its creativity is differential, creating new relations between entities in process.

Still, this standpoint remains better at defining what should not be done than what we should actually do. Critics have questioned the radicality of Deleuze's work and argued that its motivation is deeply conservative (cf. Dosse, 2007; Lemieux, 2007). Deleuze is understandably cautious about recommending action to others, but for critics such as Hallward (2006) it is not always clear from his pronouncements on, for example, the unworthiness of certain types of action that we are being invited to do anything other than contemplate some wonderful, but quite empty, life-force. It is not just utterly divorced from actual questions and day-to-day life, but it also demands that the actual become redundant (Hallward, 2000, p. 98). Critics argue that the resulting vitalist ethics has, therefore, insufficient critical purchase (Toscano, 2007, p. 88) and, as a "metaphysics of experience" (Brassier, 2011), leaves us with no way of justifying ourselves. This negative impression is exacerbated when the virtual, its time frame (Aiôn) and its paradoxes are explicitly described as "beyond any possible function" by Deleuze and Guattari (1994, p. 157), part of a "mental void" (Deleuze, 1969, p. 92). Indeed, rather than present a critically valid ethical scheme, Deleuze's essentially optimistic take even on the darkest of events, visible in his treatment of Bacon's work, constitutes an apology for them (Joyce, 1985, p. 27). Joyce argues that Bacon's depiction of humanity's degeneration and misery is rendered bearable in Deleuze's eyes by the dissolution of our limitations into the undifferentiated cosmic flow of all matter. The fact of our brutal limitation is simply ignored, and Deleuze's event abstracts itself from actual bodies, leaving mere religiosity behind (Badiou, 1997, p. 41; see also Žižek, 2004; Brassier, 2007b; Reynolds, 2008).

For James Williams, however, such attempts to criticize Deleuze's work are "lopsided" because they fail to register his constant insistence on the role of practical experimentation and condemnation of abstraction (2011b, p. 178). And it is at this level that Deleuze's ideas are relevant to educators and learners. Deleuze insists on experimentation as a way of life by treating truth as a figure developing through time, only making sense through singular actualizations:

> [a] life is everywhere, in every moment which any living subject passes through [...] immanent life carrying with it the events or singularities which are only actualized in subjects and objects. (Deleuze, 2003, p. 361)

Deleuze's "tools" can, therefore, only be criticized on their own terms, namely, whether they can be used to build something else (Goodchild, 1996, p. 46), which in this case means practices based in a different conceptualization of creativity for lifelong learning. The relevance of this can only be discovered by finding out what it does to the body of lifelong learning.

6
Professionalism and Practice

If Deleuze's innovation concerns how to live and create as much as any strictly philosophical originality, it develops a philosophical method which deliberately blurs the distinction between research and practice by making practice into an experimental research activity (Williams, 2003, pp. 1–3). So I want to focus critically on this question by examining the extent to which improvisation, chance and error are deployed to creative ends for the sector's research and teaching. This prepares the ground for an ambitious reconceptualization of ethical action in teacher education.

Such action, however, must be understood in a context where practice and professionalism are in the lifelong learning spotlight and concern a set of closely interconnected practices. Teacher educators play a pivotal role in the dissemination of professional practice, whether the focus be pedagogy, research or, indeed, the link between the two. Subject to all the particularities of a role in lifelong learning, they are expected to synthesize best practice and literally model it axiologically for reproduction. Best practice here involves the promotion of a practice–research nexus, first because the practice of teaching is inseparable from that of learning: the professional teacher is not just a practitioner whose pedagogy is expected to be centred on the learners' needs, voice and expectations, but also a lifelong learner themselves. Often teachers in the sector come to the role as a second career, having already acquired skills in, for example, vocational areas, and so the process of training and becoming a teacher is a significant one from a pedagogical point of view. In addition to this, as we have seen, the discourse of continuous improvement means that teachers in the sector are expected to maintain their professional credibility, if not their actual status, by CPD.

Second, as we have seen, teaching practice is increasingly linked to research practices. The current popularity of evidence-based teaching in

political and sector discourse reflects the widely held view that teaching must respond to changing learner needs by engaging actively with research practices to update knowledge. Taken together, teaching and research are increasingly two sides of the same phenomenon, and must be understood as part of the drive to professionalize the sector via a symbiotic linking of research and practice with a view to the enhancement of practice by the production of knowledge. Teacher educators in lifelong learning are at the centre of this nexus: they often move into the role from standard lecturing positions, often maintaining their "ordinary" teaching roles and delivering teacher education and CPD at the same time.

Thus, while the principle of "professionalism" is difficult to challenge, the way it is promoted and the forms it takes in terms of "professionalization" are important to teacher education and need to be examined. For example, the UK Commission for Employment and Skills has explicitly set out to "explore the options for 'professionalizing' all parts of the Lifelong Learning workforce" (UKCES, 2010, p. 4). Understood as the progressive achievement of a set of goals, standards or ideals, professionalization is often described as an "agenda" (e.g. Robinson and Rennie, 2012) whose purpose does not always meet the needs of professionals themselves. For example, it is less clear exactly whether teachers are like other professionals in any clear respect, exactly what these skills are, and in what way they might be out of date. Moreover, whether a "knowledge base" is actually helpful in a rapidly changing world is also questionable. Without other defining features of professionalism (a consolidated body of knowledge, high qualifications and salaries, social status, autonomy, and independence of judgement, for example), practitioners might be forgiven for thinking that professionalism in lifelong learning can be reduced to the demand for the constant upgrading of one's skills and knowledge base (e.g. CAVTL, 2013).

There is an interesting paradox, however, in that, as one's experience of the complexity of the sector evolves and develops in variety, one risks becoming more acutely aware of the single-minded purpose of formal teacher education based on the recycling of its own knowledge base and a sometimes reductive set of assumptions about good practice. Indeed, without specific training or "codified knowledge", it has been suggested that teacher educators in the UK can do little more than reproduce the existing practices in the belief that "what was good enough for me is good enough for them" (Spenceley, 2006, p. 293). This is significant, because, although Lifelong Learning is not the only sector keen to professionalize its staff, it reflects the fact that its professionals are largely responsible for

this professionalization. However, professionalism in lifelong learning is too often understood in relation to fixed forms or normative ideals of what should happen (Colley *et al.*, 2007).

On this view, lifelong learning involves inculcating learners with a specific but contestable set of predetermined moral and political ideas (Armitage *et al.*, 2012, p. 15) – and, of course, its own image. Being a professional in this context has moved away from a covenant implying payment for expertise, autonomy and responsibility, towards a very different contractual arrangement based around the need to micro-manage everyday professional life. Such standardization may assist organization and even attract those who take it for a sense of identity, but does it effectively support creative practice? If, as Funicello (in Fendler, 2008, p. 250) suggests, we are seeing a professionalization of the act of being human, does it provide an ethical perspective which actually supports its transformative ambitions, bringing professional practice to life rather than the other way round? Funicello's point is that professionalism too often boils down to the codification of basic forms of human activity which cannot be atomized without trivializing them. Professionalization, in effect, redefines people in its own individualized, technicized and highly abstract image. Personal experience of membership of professional bodies in this area suggests that this is a common demand, and that its codification of individuals begins with the highly prescriptive application process and the sometimes threatening tone used against those who do not respond to it (cf. Thomson, 2008). Learning, in this context, is both a fundamental and a highly problematic professional issue.

Learning

Learning is a difficult and "lifewide" endeavour from the sector's perspective (Williams, 2007), involving a large number of dynamic factors well beyond the classroom. As Harriet Harper points out (2013), lifelong learning has felt it necessary to focus on learning, rather than teaching, for a generation. And yet, although learning is "at the centre of the teaching enterprise" (Sachs, 2007, p. 10), and a teacher's primary role is "to facilitate learning" (Wallace, 2007, p. 167), there is "a surprising lack of attention on issues pertaining to its definition and process". (Sawkut *et al.*, 2010, p. 2)

Many different and conflicting definitions of learning are nonetheless available to teacher educators in lifelong learning. Examples include Field's (2006, p. 35) view that learning is unavoidable, constant and

natural. Popular initial teacher education (ITE) textbook authors Reece and Walker (2007, p. 53) assert that "[l]earning is about change: the change brought about by developing a new skill, understanding something new, changing an attitude". Burns (1995, p. 99) says it is "a relatively permanent change in behaviour with behaviour including both observable activity and internal processes such as thinking, attitudes and emotions". More politically charged definitions include that of Jarvis (1995, in Armitage *et al.*, 2003, p. 97). For Jarvis, learning is an "emancipatory experience" that "may involve a change in self-organization and perception". It involves an educational ethics in the form of an unconditional concern for the other (Jarvis, in Tennant, 2009, p. 158). For Billett (2004, p. 111), it involves assimilation of the new via an overcoming of disequilibrium which reconciles difference. A difficulty with this account is that it explicitly equates new knowledge with a honing or reinforcement of the already known, since "most of the knowledge humans learn is not innovative, although it may be new to the individual concerned" (Billett, 2004, p. 112). This may be true, but it raises questions related to how we learn the new rather than hone the given, notably that of the relation of learning to operations of reproduction concerned with the transmission, rather than the creation, of knowledge.

Many of these views reflect what Carver (2012) call a tendency towards "individualistic and didactic methods for imparting knowledge from teacher to student" which embody a response to economic demands. The direction of travel is important here, since she finds the process "relatively passive" and (therefore) inconsistent with modern collaborative working and learning environments. Coffield (2008, p. 6) also attacks any definition of learning that in his view "amounts to nothing more or less than the transmission and assimilation of knowledge and skills". A dualistic view of learning risks assuming this passivity, and, even when it identifies a reciprocal relation between agency and structure, we are still left with broad concepts, such as "structure" and "agent", whose genesis is left unexplained. The focus needs to shift from the obvious to the "hard-to-learn" knowledge, which is increasingly important as individuals are expected to organize their own lifelong learning (Billett, 2004, p. 121).

Hence, much discussion of learning tends to neglect one or other of the aspects of the wider psychological, social or political context. (Illeris's (2004) overview of how these perspectives fit together to form a whole is a notable exception.) Such technical definitions are challenged by "critical" or transformative" pedagogies on the grounds that they neglect socio-political reality (cf. Smyth, 2011). Critical pedagogies

seek to challenge power-play, but may end up assuming that learners are dupes in need of enlightenment or emancipation. This can seem patronizing, since it appears to position lifelong learners – *a fortiori* teacher educators – as deluded puppets in need of remedial help. But it is also possible that such a mind-set undermines itself, if, as Woodhouse claims (2012, p. 141), it stems from Marxist roots, making critical educational theory unable to unpick "the serpentine relationship between power and desire" and the way we actually encourage oppressive practices. Even critical pedagogy can reinforce a view of the educator as an "enlightened person doing something to the underdeveloped or incompetent" (Jarvis, in Matheson and Matheson, 2000, p. 199), an image of professionalization in search of a raw material to mould by reproducing its own image: the consumable learner. We are reminded of Peter Scales's (2011/2012) point that educators have become used to "having things done to them". And, while few would surely argue that initial teacher education constitutes the end of the process of learning to teach, particular forms of CPD imposed from on high risk eliciting either grudging compliance or uncritical assimilation, not a jolt to get us "out of the groove". At worst, they risk turning teachers away from any desire to innovate they may have harboured.

Thus, learning is often reduced to its contribution to economic performance as quantity to be exchanged. This seems strange, since the competitive functions of learning are merely "a secondary, late-modern addition" to the primary function of learning (i.e. "one of the most basic abilities and manifestations of human life") for Illeris (2009, p. 1). This reduction often works in subtle ways, such as, for example, where the development of creativity is hindered when learning too often relies on unsuitable metaphors of acquiring, filling or building. As criticized above, acquisition on these terms means constructing a boundary between an improbable psychological inside and a context-free body of knowledge outside. Ultimately, this cannot account for the striving or desire implied by the process of learning about emerging objects, it is argued (Jensen, 2007, p. 493). These non-social elements are occluded in this way, breaking the link between learning and the environment in which it takes place (Plumb, 2008, pp. 65–66). An obvious example in lifelong learning teacher education is its tendency to personalize assessment through tasks such as reflective writing and portfolio-building. Both can become rather empty, mechanical activities with little relevance to either individual practice or wider educational issues, largely, in my view, because they are predicated on the prescription of personalized learning and its environment.

Prescription

Professional practice in lifelong learning is often highly prescriptive. A broadly suspicious view of theory in lifelong learning sees it as an abstract concept to be applied to practice, adding to the view of professionalism as the implementation of orders from above. What is problematic is the tendency to present the *application* of theory as a natural, rational choice independent of circumstances. LSIS (2013, p. 14) stipulates, for example, that new teacher education qualifications will contain "knowledge and application" of theory and pedagogical principles, on the one hand, and the investigation of "pedagogical principles and innovative and creative approaches in own area of specialism", on the other. It seems clear that theory is simply there to be investigated and applied, but never developed or changed.

This expectation is, nonetheless, commonly criticized in a field where theory is not just equated with elitism but even seen as a "disease" to be "eradicated and replaced by professional judgement" (Pring, 2000, p. 76; see also Newby, 2010). The flawed logic of such professionalization in a sector known for its job insecurity has left the notion of (FE) teacher professionalization as something of an illusion (Spenceley, 2006), or at best "on shaky ground" (Bathmaker and Avis, 2013, p. 734). Indeed, for Crowther (2005), FE research in particular suffers from being under-theorized and reliant on descriptive statistics because of a basic lack of what he calls "endogenous reflexivity" (i.e. the ability to critically appraise its own assumptions). Hodgson and Standish (2009) take the example of the deployment of "post-structuralist" thinkers in education, criticizing in particular the way concepts are taken as given, on the one hand, and the effect this has, on the other. Educators, they argue, are too quick to adopt ideas whose literal references to education should act as warnings. References to thinkers such as Foucault are often ornamental for Fejes (2008), with a tendency to embark on "taken-for-granted procedures" simply because they "feel largely intuitive" (Flyvbjerg, 2011, p. 308).

There exists, moreover, a certain elitism in the assumption that practice cannot understand theory or engage in complex argument, which reflects the common deficit view of the lifelong learner and practitioner. This does not just limit, *a priori*, what can be done and where, but implies again the "command and control" view, criticized above, rather than any notion that practice should be creative. Hence, the discourse of theory as disease implies that a genuine analysis of theories is unnecessary, and that truncated versions of them can be simply imported into practice-based on notions of "what works".

This expectation of application reflects other divisions between theory and practice, vocational and academic, professional and non-professional, and even mind and body. For Hagar (2004, p. 243), this is reflected in a "standard paradigm" of learning, which exists to stress internal changes to the contents of individual minds through a Cartesian mind–body division. Here, concepts, as representations of the world, are combined in propositions and are only supposed to affect the world through the body as medium. Learning, as a result, is a logico-linguistic activity, separate from material circumstances and, for Hagar, dependent on "timeless, universal entities". Fenwick (2008) rejects this view that abstract theory can exist to be simply implemented on a separate body of practice. She demands a "turning away" from the kinds of learning which imply the depth of individualism, acquisition and psychology located inside individual heads. Her view of professional learning over-turns the idea of knowledge which transcends practice, placing learning on a surface where it can be relational, interdisciplinary, practice-based, socio-cultural and system-oriented. This implies a flat epistemological and praxological topology, and, in short, Fenwick argues that the spaces of knowing and of action are more important in professional contexts than any transcendent term as reference point.

It is perhaps here that Deleuze's philosophy of events is most perti-nent for lifelong learning. A central aspect of this philosophy is its insist-ence that events themselves are effects and that these effects occur on a surface between points in series. Four key conclusions can be drawn from this, all of which repeatedly find their expression in Antonioni's work. On the one hand, events require a surface of absolute imma-nence. Events do not repeat or represent higher-order objects, and so are produced on a single, immanent plane. Each one is different, while at the same time expressing this single univocal plane. Events also require a surface of composition. Here, individuals are composed in relation to other individuals. They are still subject to immanence, but what is immanent to them is the axiom of constant combination with other individuals to produce events and series. This implies the existence of a surface of interference between individuals where "things" literally takes place. We no longer see events as individual objects, but the dynamic activity which takes place between them on a surface which has no space for reification. This is the surface of superficiality, where being is synonymous with this encounter.

Reconceptualizing professional practice as an event in this way has several implications. Perhaps the most important of these is the fact that the process of professionalization is never fulfilled, because its

event does not lie in the goals or standards to which it is equated. There are always virtual aspects to practice which exceed present activities or states. The event of professionalism is, therefore, always already both past (what I was capable of) and future (what I am becoming capable of). Consequently, it provides spaces for learning and a degree of freedom. It exceeds the boundaries of individual practice, since it is a socio-material event reliant on emerging, but quite physical, networks and connectivity. The goal of professionalism as a tool of market expansion is, therefore, undermined, since it is no longer an object to be attained, granted, lost or paid for. Professionalism as an event is, by definition, irreducible to such an economy. However, it would be naive to believe that this unlimited prospect is only deployed for benign purposes. These are tied to the formulation of subjectivity in lifelong learning, to which I now turn.

Subjectivity

The question of subjectivity arises whenever powerful agents in the sector take an interest in who we are. Documenting how, when, where and why we participate in learning and how our identity as professionals is constituted is a topic of great interest to those who would govern the unruly ecology of lifelong learning, and this theme has, unsurprisingly, garnered considerable attention in the literature (e.g. West, 1996; 2004; 2007 and *passim*; Ecclestone *et al.*, 2005; Field and Malcolm, 2006; Horsdal, 2007; Ecclestone, 2008; Swennen *et al.*, 2010; Tuck, 2010; Zhao and Biesta, 2012; Watson, 2013). As suggested above, such documentation of the minutiae of subjects' learning lives is itself problematic if its channels, objectives, rationale and implications resemble the opaque forms of "monitoring" or "dataveillance" used to control marginal(ized) populations (Genosko and Bryx, 2005). Such ordering flatters a need for predictability in a disordered world (Adam, 2006, p. 121), but what is interesting here is why subjects appear so willing to do it to themselves. This is arguably the central question of Deleuze and Guattari's *Anti-Oedipus* (1972/2004a), highlighted by Foucault in his preface to the (English) text. The key point made by Deleuze and Guattari here is that, in order for control to be normatively effective against the unwanted effects of desire, it must in some way include desire in its workings (Smith, 2013a). Desire must be theorized as transcending both control and freedom, operating at a genetic level as the producer of such phenomena, not their lack.

However, although lifelong learning makes much of its respect for individual difference, this interest in identity is increasingly functional

in nature. It implies not just a desire to document the minutiae of routine behaviour, but a questionable *moral* perspective on what we do as learners *en masse*. Treating individuals in this way relies for its effectiveness on a certain "formalization" of the individual which goes beyond the familiar idea of the creation of docile bodies with little aptitude beyond the capacity to conform, reproduce and normalize others.

For example, despite its social constructionist claims, much learning and teaching in teacher education tends to be assessed in ways that reinforce behavioural conformism to a narrow set of unexamined values by constructing a "fragile" subject (Macfarlane and Gourlay, 2009, p. 457). Such approaches mistake the problem for the cause and suggest that identity is "a sentence to lifelong hard labour" (Bauman, 2007, p. 111). Just as people in classrooms are referred to as "learners" and "facilitators", individuals become "dividuals": the *in*dividual as *non*-divisible, singular entity is reduced atomistically to a small number of attributes and its *generic* capacity to represent every other. A central attribute of a variety of good sense which thrives on allocation, categorization and enclosure (Deleuze, 1969, pp. 93–94), the main purpose of this "dividualization" is to give common measure to that which does not have one (Deleuze, 1983c, p. 27). This facilitates their assimilation to similar others who can be controlled *en masse* and put to use as human capital (Deleuze, 1990/2003, p. 244). Particularly amenable to electronic control and surveillance, modern capital's abstract flows of data need such subjects to function. For Deleuze and Guattari (2004b, p. 470), "predisabled people, pre-existing amputees, the stillborn, the congenitally infirm, the one-eyed and one-armed" are created. This is only possible by acting as if subjectivity were transcendent to the forces which constitute it (time), reversing creative processes of change and separating the subject from events (Montebello, 2012, pp. 39–40). Amputated of their possibilities to connect, these bodies have few chances to affirm difference, and therefore become increasingly susceptible to identification and control. On the ground, this translates into trainees without discernible subject expertise, lacking in practice or knowledge base, undergoing generic training in preparation for a teaching role in which their only function is to facilitate learning, whatever the context or conditions.

Capacity

One way in which we might avoid compounding this phenomenon is to stress the creative capacity of learning. Illeris defines learning as "any process that in living organisms leads to permanent capacity change

and which is not solely due to biological maturation or ageing" (Illeris, 2007, p. 3). The sheer breadth of this definition is open to criticism, but its stress on capacity change beyond the naturalistic seems valuable in linking the process of learning with the capacity to activate other processes. Roth and Lee (2007, p. 194) make a similar assertion, that learning expands action possibilities in and from the production of both knowledge and the artefacts which embody and mediate it. Because it expands opportunities to participate in such production, it expands learning and development, they state: learning, here, is "equivalent to the mutual change of object and subject in the process of activity" (Roth and Lee, *op. cit.*, p. 198).

In effect, these definitions situate learning as operative in the sense defined above: learning is a differential, axiomatic process which is not unique to humans, and which is notable for its ability to create other material processes. Concretely, a direction is again provided here by Fenwick, for whom learning is emergent and unpredictable; it is situated provisionally in networks of people, activity and technology; and it is expansive rather than acquisitive (Fenwick, 2008, p. 2). Fenwick's view recalls John Dewey's influential position, according to which "[i]solation of subject matter from a social context is the chief obstruction in current practice to securing a general training of the mind" (Dewey, 1916/1966, p. 67). From this perspective, learning is recognized as a complex, multifaceted phenomenon which "can only be understood relationally" (TLRP, 2009, p. 16). Importantly, though, higher-level learning, on this view, is simultaneously disintegrative and creative, with shocks, jolts and crises (Bramming, 2007, pp. 50–53). Affects and unexpected events are "intimate, provocative, and worthy of our isolation and attention", and each moment only endures long enough to encounter the next moment and "its attendant *crisis* of identity" (Woodhouse, 2012, p. 143, emphasis in original).

These recent descriptions suggest that Deleuze's account of pedagogy has contemporary value, tied as it is to his ideas about how thought thinks via a creative stutter and the relations it produces. For Deleuze, learning involves this encounter between new and old, but does not reduce the changes which result from the meeting to existing repertoires of ideas:

> We learn nothing from those who say: "Do as I do". Our only teachers are those who tell us to "do with me", and are able to emit signs to be developed in heterogeneity rather than propose gestures for us to reproduce. (Deleuze, 2004a, p. 26)

Here, pedagogy is a form of cultivation which takes us beyond well-known commonplaces. Culture is a process of learning, not the product of the mind, and is, therefore, a material phenomenon which throws up chance encounters of a potentially shocking and disruptive sort through the signs it creates. It is "an involuntary adventure" whose movement links sensibility, memory and thought "with all the cruelties and violence necessary" in order to "train a nation of thinkers" or to "provide a training for the mind". (Deleuze, 2004a, p. 205)

Implications

There are many ways for these ideas to affect practice. The first is that a creative pedagogy will not emerge from prolonged abstract thinking or reaching upwards for inspiration (contemplation), from thinking about experience (reflection) or even from dialogue (communication). This is because all three, as practices in marketing show, effectively concern the establishment of a universal in the form of a common, repeatable consensus by which to judge actual experience. This consensus can be seen in the way ideas about theory and application are promoted in teacher education, lending it a Platonic feel.

This transcendence also implies a certain reification of terms such as "learning", "teaching" and "research". Deleuze's philosophy challenges this because it refuses to see complex activity in such rigid ways. It also insists that such networks of implications must be problematized and unpicked, not represented by vague concepts. Hence, creativity is the more modest task of a pedagogy of the concept, according to which we analyse the conditions of creation as "factors of always singular moments" (Deleuze and Guattari, 1994, p. 12). Here, "singular" relates to the mathematical definition of a unique point where "something (new) happens" (for example, at the corner of a square), in contrast to the ordinal point "where nothing (new) happens" (for example, at any of the infinite number of points on the sides of the square) (Adkins, 2012, p. 508). Deleuze and Guattari say that we need to respond to these moments in ways which pay attention to signs of life, which itself does not speak, but listens and waits (Deleuze and Guattari, 2004b, p. 84). This means two things: first, challenging our tendency to look ahead (acting extemporaneously) and what this implies about our desire to control the future; and, second, learning from the actual conditions of activity and responding to them in a dynamic way with active, on-going enquiry rather than applying given ideas. A pedagogy of improvisation, chance and error is implied, with concrete impact in the spaces between research and practice.

7
Improvising in Research

If today's professional training "does not prepare practitioners for working outside established organizational practices" (TLRP, 2009, p. 17), this is because it seeks higher levels of standardization on the presumption that order, coherence and similarity should overcome difference. Its research economy is uncreative, and, afraid of exposure to an "outside", professionalized practices are frequently preoccupied with "cycles of repetition and self-serving arguments" (Cole, 2009, p. 121). Central to this is the pressing issue of freedom to actually think about practice without becoming what Brossat and Rogozinski (2009, p. 35) call "the good little drones of blueprinted 'research' ". The same concern also informs Stronach and Clarke's (2011) call for more innovation and creativity. Professional competence, they state, is no more than a palliative slogan which evades the central problem of the heterogeneity of the real, thus failing to prepare practitioners for it. The heterogeneity they see in complexity demands an ability to respond to the unpredictable by improvising, where improvisation describes the activity of responding creatively to unpredictable events.

This improvisation reflects a material space of multiplicity, heterogeneity and interaction, working "in ways that confound conventional categories deployed in educational research" (Fenwick and Edwards, 2011, p. 709). For Waterhouse (2011), a "Deleuzian" research demands a complete transformation of what research means, aiming to develop not new methods but, rather, "intriguing spaces" whose liminality invites further inquiry. Similarly, Ken Gale (2007) writes that a focus on experimentation means developing the ability of education research to make connections with other research approaches, thus developing multiple interconnections between different forms of emergent practice. For De Freitas (2012), situations of "dispersal" and shifting dynamics in

the classroom mean that change is a becoming-other of research which is already in train. All these researchers aim to work "rhizomatically", which means tackling head-on the issues of "mess" in the sector and the ambiguous status of representation and "voice", issues to which I now turn.

Rhizomatics

The rhizome is one of the first conceptual devices introduced in *A Thousand Plateaus*. Rhizomatic figures are "acentered systems, networks of finite automatons, chaoid states" (Deleuze and Guattari, 1994, p. 216), with examples including weeds, roots or tubers, packs of wolves, or networks of tunnels (Deleuze and Guattari, 2004b, p. 7). They are flat multiplicities or productive material systems defined by connections with the outside, growing from the middle rather than top-down (principle–object) or bottom-up (object–principle). I think it's worth taking care with a term which is not really helpful if it is used inexactly rather than anexactly: a rhizome is not just any old mess, but a system with very particular *generative* features of an assemblage or *agencement*. "Rhizomatic" thought is only creative to the extent that it is "nomadic": it works by assembling disparate connections rather than imitating or reproducing the given, and is "not amenable to any structure or generative model" (Deleuze and Guattari, 2004b, p. 13). For me, its interest lies precisely in its role in the differential operation of creativity outlined above.

Rhizomatic activity is proper to thought, which is creative by right and set in motion by its own limit, operating on existing terms without thinking them dialectically. In his 1966 study of Bergson (Deleuze, 1966, p. 7), Deleuze relates Bergson's insistence that thinking in terms of negation and opposites tends to rely on unwarranted presuppositions. For example, we understand dis-order as a form of order which lacks something, and our tendency to relate things in this way leads to confusion and poorly posed problems. Thought is, on the contrary, non-dialectic, because it does not progress via negation and synthesis: on the contrary, negation is no more than a "shadow" of the much more important movement in thought, the fundamental nature of positive affirmation or that of rhizomatic, creative involution. The essential positivity of things and the need to affirm them is perhaps the stance which most strongly underpins Deleuze's own ethical view, tying it to ways of thinking and being which are essentially creative. This is one reason why rhizomatic thinking has been influential, to the point where Stephen Zepke drily

comments (2011, p. 74) that it is already "today's reality". Evidence of this popularity lies in the various forms of what could be called "rhizomatic development" (Stronach, 2010, p. viii) which have been explicitly promoted by many researchers in education and lifelong learning who draw on the concept in their work (e.g. Amorim and Ryan, 2005; Honan, 2007; Sermijn *et al*., 2008; Edwards, 2010; Friedrich *et al*., 2010; Stone, 2011; Munday, 2012).

However, as Zepke implies, it is not a question of whether research can be rhizomatic in lifelong learning, but, rather, how it is so and what changes will emerge. For Eileen Honan and Marg Sellars (2008, p. 111), "rhizomatic" research possesses three properties of importance to educators, all of which help define this way of being. The first is inclusivity, since, although it is partial and tentative, it allows the inclusion of the authorial voice by recognizing that this voice is always a composition of other voices. The second principle is multiplicity, since a rhizome recognizes the myriad of discourses which intermingle in a given text or event. A third property of a rhizome is its unpredictability, since it makes unpredictable connections between disparate elements. Rhizomes are, therefore, improvisational in that they assume diverse forms, growing from the middle by undermining constraints in processes of challenge and renewal which are perpetually prolonging themselves, breaking off and starting again (Deleuze and Guattari, 2004b, p. 22). Because this growth is unpredictable, it leaves much to chance encounters, but it is also an embodiment of "error" insofar as its creativity works underground, developing spaces which do not correspond to existing ways of being. For example, Mary Leach and Megan Boler describe their attempts to deploy the concept as overtly improvisational and anti-didactic, allowing a renewed challenge to authority from minor discourses, in their case "women's gossip":

> Contrasted to the organization and interpersonal dynamics of a symphony, we have improvisational jazz. Contrasted to the authoritative, didactic efforts of dialogic teaching, in which we try to instill the idea that meaning inheres in concepts, propositions that are transparent, we have the rhizomatic practice of gossip. (Leach and Boler, 1998, p. 159)

One way of examining this is to focus on the way rhizomes establish new territories by continuously growing from the middle, undermining the identity of objects. This creates territories which themselves are "passing places" (Sarnel, 2007, p. 99), typical of lifelong learning's

complex learning spaces. But they also constitute spaces of resistance beyond the "us and them" binary which dogs the academic colonization of subjects (Moulard-Leonard, 2012, p. 832).

In particular, this concerns the way lifelong learning spaces are gendered in line with masculine working practices of technico-rational instrumentalism (Linstead and Pullen, 2006; Cronin, 2008). Such instrumentalism can be linked to a gendered view of learning as processes of acquisition, mastery and control whose abstractions are systematically undermined by rhizomatic experimentation. This undermining is possible because here, as elsewhere, the shifting territories and processes which emerge are creative spaces where processes of conceptualization are necessarily novel because of the new connections and potentialities immanent to them. The development of territories where meaningful interaction can take place between very disparate communities of practice has meant changes in practice for all involved (Beighton, 2011; Beighton and Poma, 2013; Beighton *et al.*, 2014). But, more importantly, these changes continue to have an unpredictable impact on practice in other contexts. This unpredictability, and the way it both challenges existing knowledge and pushes innovation to the fore, constitutes a creative "stutter".

Creative thought is a kind of "stutter" in this emergent process of enquiry, moving from one territory to another. It is a movement of virtualization, since what is perceived in the actual is disrupted by emergence of intense virtual properties. We forget the old, which dies as the new is created, and stutter into new forms of more intense selfhood which reconfigure what we were, are and can be. From the point of view of lifelong learning research, this implies that it is not enough to produce texts which are fragmented and stuttering if they do not make the language itself stutter or push thought to encounter its limit:

> It is easy to stammer, but making language itself stammer is a different affair; it involves placing all linguistic, and even nonlinguistic, elements in variation, both variables of expression and variables of content [...] one attains this result only in sobriety, creative subtraction. (Deleuze and Guattari, 2004b, p. 109)

Hodgson and Standish (2009, p. 316) also warn against the "misuse" of such approaches in "narrative" research when closer reading shows that, rather than induce stuttering, it contributes, ironically, to orthodoxy. Deleuze's challenge is, therefore, not simply to think differently about identity, but, rather, to undermine all forms of thought which

rely on identity in the form of abstractions of representation, repetition and transcendence. Creative research will seek to interrupt the flow which allows identity to be constituted in thought in the first place and the "creative significance of rupture" (Linstead and Pullen, 2006, p. 1306). Research which does this enacts the ways in which new ideas come forth, break off, develop differently and are again blocked in a continuous process of creative improvisation. There are many ways in which research approaches can enhance teacher educators' creativity by provoking this stutter.

Mess

The first of these involves working collaboratively with the sector's messiness. This is particularly relevant to teacher education, where collaboration between different communities of practice (e.g., FE, public service provision) involves risky, "messy" encounters with real potential for creativity. As Adamson and Walker (2011) point out, these collaborations in teacher education practices are doubly "messy". Not only is teacher education itself a "messy text" with a heterogeneous mixture of actors and practices, but the collaboration within the field is also marked by the messiness of complexity, unpredictability and difficulty. This is particularly clear, they claim, in the management and monitoring of collaborative work. The authors conclude that, given divergent understandings even of basic points of reference in teachers' roles in collaborative work, a question of social justice arises from the need to ensure that these multiple voices with sufficient expertise are heard.

Deleuze and Guattari (2004b, p. 22) theorize this notion of multiple points of view by suggesting that, in order to designate something exactly, anexact expressions are needed. For example, instead of the individual subject of enunciation which expresses a molar tendency to organize and reproduce systems, a collective subject of enunciation or assemblage is needed to exactly express the multiplicity of communication. This multiplicity cannot be reduced to a single subject or voice but must, on the contrary, be explored as a collective or collaborative phenomenon marked by divergence (Beighton, 2012b).

This is perhaps easier than it sounds, because researching and writing and *a fortiori* creative thought are collective, unruly, messy processes. The differences which are actualized in processes of collaborative enquiry are not just the differences between inside and outside professional discourse (which reifies both), but the more radical ontogenetic differentiation which makes creation and learning purposeful. The desire to

respect this difference is tied to the idea that encounters with otherness are crucial for creative research. Ways of doing this include collaborative biography (e.g. Davies and Gannon, 2006; Gonick *et al*., 2011) as well as collaborative semi-fiction (e.g. Gale and Wyatt, 2009; Wyatt *et al*., 2010; Wyatt and Gale, 2011) or metafiction (Gough, 2008). Here, the focus shifts to broken flows in communication produced by the researcher's awareness of their own transience or becoming. The "narrative" in question here is multiple: not the "story" of the writer as learner, but of the text's own multiplicity: its unity and sense of purpose crumble under the influence of multiple voices.

In fact, Deleuze and Guattari add, if thought searches at all, its operation is not like the application of a method but, rather, like a dog's seemingly erratic leaping. Thought, on this view, is not grounded in a Cartesian subject's premeditated decision to begin thinking, but in an internal "mummy" or "idiot" with a penchant for absurdity. That said, we have no reason, Deleuze and Guattari assert, to derive any pride from a chaotic image of thought, since this image points to how thinking has become increasingly difficult in its relation with immanence (Deleuze and Guattari, 1994, p. 56). This invites us to evaluate the extent to which new connections are actually made by (for example) writing. What is valuable about the process of writing is far more important than its product, and the value of this process lies in its differential capacity to facilitate further unexpected encounters and collaborations and, therefore, further improvisations. Here, research practice comes closer to the sorts of artistic diagrammatic practices described above, where the researcher tries to work with the research context rather than trying to represent it. The attempt is to render what Deleuze sees as the birth of modern thought, namely a "failure of representation", a "loss of identities" and the discovery of forces which underlie them (Deleuze, 2004a, p. xvii).

This unearthing of an idiot within thought invites a study of how disjunction works in (narrative) discourse and, indeed, creativity. Rather than evidence of the discursive constitution of a rational subject, moments of affective puzzlement break the flows of thought and unification and express the disorientation and stuttering found as a result of "discord in the faculties" (Faulkner, 2005, p. 138). The depth of this discord should not be underestimated, since it introduces not just another sense but a completely different form of sense:

> There is thus a point at which thinking, speaking, imagining, feeling etc., are one and the same thing, but that thing affirms only the

divergence of the faculties in their transcendent exercise. It is a question, therefore, not of a common sense but of a para-sense. (Deleuze, 2004a, p. 243)

The "disorder of the senses" in question here is key to Deleuze's configuration of the emergence of the new. To make this link, Deleuze focuses on Kant's view of sublime moments as incommensurable with rational understanding: in fact, the new is a sublime experience which shatters reality in a destructive or catastrophic way, introducing a "harmony in pain" (Deleuze, 2004c, p. 62). However painful, this is "the mechanism by which genetic rhythms emerge from chaotic infinity" (Zepke, 2011, p. 78). There is, for Deleuze, no point in messiness for its own sake or in overthrowing sedentary forms if it is merely to re-create them. This applies particularly to the attempt to represent the "voice" of learners, a common theme in education research which brings its own problems and singularly uncreative assumptions about who we are and how we should relate to each other.

Voice

The idea of a subject endowed with its own voice is, for Deleuze and Guattari (2004b, p. 143), a "strange invention" which confuses the subject (the speaker, *l'énonciateur*) and the spoken (the spoken, *l'énoncé*) when it suggests that the speaker is the cause of statements of which it is itself a part. Language is "hearsay" for Deleuze and Guattari (2004b, p. 85), whose point is that, just at the moment when we believe we are most autonomous or speaking for ourselves, we are most subject to the order words of the dominant culture and demands for subjects to embody and articulate them. A good example is the discourse of emotional need, according to which learners are assumed to lack emotional intelligence and are therefore in need of training to attain it. Such ideas depend on a false opposition between rationality and emotion (Zembylas, 2007b), but are so popular that education "has no hiding place" from them, as David Cole has eloquently put it (2008, p. 29). Cole argues that, however real emotions may be, their articulation in language is always at least partly colonized by their marketization to the point where voices of authentic feeling and those of advertisement become indistinguishable. So subjects may believe they are articulating a profound inner need, when in fact they are disseminating an economic discourse which is actualizing psychological well-being and happiness as latent sources of profit. Practitioners need to recognize that emotive commitments to

such values as diversity and solidarity in the sector can be indistinguish-able from the performative pressures of an instrumental organizational agenda (Ryan and Bourke, 2013) ultimately reinforcing practitioners' conformity with it (Bathmaker and Avis, 2013).

In fact, lifelong learning research does not have to see the (formal) absence of a research subject as a lack which requires filling by a "voice" in terms of a moral duty. In fact, as our discussion of the event of lifelong learning and Antonioni's work suggests, what is missing can drive know-ledge production through a process of creative de- and re-territorializa-tion, for example as an opportunity "to read against and in the interstices of the texts assembled" (Kuppers and Overboe, 2009, p. 218). The key point here for Deleuze is that representation is "a site of transcendental illusion" (Deleuze, 2004a, p. 334), because we cannot and should not represent objects which cannot be repeated without difference. "Voice" evidences such an illusion by attempting to represent people by allo-cating them spaces but denying their capacity to become other, missing the chance to speak for those who are still to come. As he says, everyone claims to speak for someone else, often in the name of a linguistic majority supposed to grant this privilege of voice. But "[i]t's the people which is missing" (Deleuze and Bene, 1979, pp. 126–127), a "people that do not yet exist" (Deleuze and Guattari, 1994, p. 108), because change happens at the frontier between the known and the yet-to-come, passing between structures and the lines of flight which constitute their event.

This non-representative appeal to a people to come can be exam-ined in research which deals explicitly with the missing subjects of these events. For example, Mazzei (2011) reads the silences of excluded black students as an imprint of overdetermination. This overdetermin-ation works by the identification of a people which – most especially on racial grounds – can never be anything other than a "bad copy" or simulacrum of the "old race" or majority (le Colombat, 1999, p. 844). Instead of reproducing this overdetermination, a-linguistic communica-tion's performative aspects are stressed (non-speech as communication of a positive undetermination), in order to take into account the "silent struggles at the heart of language" whose suppression is required for dominant forms to emerge (Roy, 2008, p. 167).

This issue of communication in research reflects this critical overde-termination of subjects in research situations. It is hard for any research process to claim originality as soon as the situation implicates forms of communication which reproduce perceptions through attempted representation. For example, progressive models of empowerment for the disabled depend on an act of "discursive subjugation" which works

via the "facialization" of disability (Bayliss, 2009, p. 282). Rather than a granting of voice or empowerment, this facialization attempts to render the specificity of disability into a generic narrative. As such, it is synonymous with an attempt to subjugate its unruliness and bring it under control. Rather than a potentially narrow focus on individual self-hood, creativity and experimentation involve a transformation which is based precisely on such an encounter (Bayliss, 2009, p. 293). This is an encounter which goes well beyond the limits of "voice" in research, underpinning the possibility of actually articulating something worth saying.

8
Taking Chances in Pedagogy

The potential for improvisation in creative research offers a number of avenues for the sector, but these must be understood in relation to the practice which is actualized in events where chance plays a key part. Deleuze's ideas work in dialogue with some of the conclusions made about chaotic, far-from-equilibrium systems (Prigogine and Stengers, 1986). Elsewhere, Prigogine (1986, pp. 42–44) points out that chaotic and complex systems cannot be described in terms of the individual trajectories of their components, since, by definition, these do not follow predictable pathways when examined on their own. However, if randomness is no longer considered an exception or a problem to be resolved, such systems display the characteristics of emergent order, since under particular conditions these components show a statistical tendency to act in a particular way when seen as a whole. It is the laws of chance which govern such systems, drawing our attention towards the behaviour of blocs of moving objects and the forces between them rather than the positions or even trajectories of individuals. If outcomes are unpredictable, practice can only participate in this complexity by being creative in the way it explores the problems it faces. For Leach and Boler (1998, p. 168), more creative practices are to be welcomed for the effects and outcomes which "may be (one hopes) far beyond our control".

Antonioni's work, however, suggests that the question of how much control to relinquish is a central issue in relation to professional practices in lifelong learning, which cannot be solved by abrogating responsibility for events. The view that education should prepare citizens for the challenges of the increasingly complex nature of modernity is also reflected by those who, like Anthony Giddens, link globalization with a "runaway world" (1999). Here, fluid, complex problems are like juggernauts or

have co-evolving "boomerang effects", defying notions of causality (Urry, 2005b, p. 242; see also Adam, 2003 and *passim*). Such technological "runaway objects" lie at the centre of organizational learning, but they exceed the mastery of any single individual for Yrjö Engeström (2006, p. 1784). Their value lies in the relations they establish and maintain, and they remind us that a lack of control over our environment is a direct result of increasingly complex working contexts which demand a reconfiguration of what passes for knowledge and expertise.

In this complex material world, problems are more important than solutions, and the need for imaginative pedagogical approaches to reflect the role of chance has not escaped theorists of professional practice in lifelong learning. For Jerome Bruner, for example, the development of a "sense of possibility" is a risky but necessary aspect of pedagogy. Failing to equip minds with the ability to interact with this world is counterproductive because it risks fostering practical incompetence (Bruner, 1996, pp. 42–43). Harkin *et al.* (2001, p. 55) also argue that intellectual development comes when *possible* solutions to problems are linked to *potential* outcomes, and it is possible and perhaps necessary to capitalize on "moments of contingency", some suggest, by responding to times when "learning might go one way or the other" (Ecclestone, 2011, p. 4). For Woodhouse (2012, p. 148), learning which involves such potentialities is a "subjunctive pedagogy" of multiplicities, affects and non-linear timescales. The detours and different layouts of a pedagogy based on a subjunctive "could be" contrast with the straight lines given to us by prescriptive pedagogies, which she associates with an indicative mood.

Problems

Lifelong learning needs to respond to this if it is to avoid being marginalized by social complexity. Although often neglected in trainee manuals keen to promote methods which lend themselves to measurement and evaluation, concrete methodologies do exist to do this. These include task-based approaches which place learning, not abstract criteria, at the heart of the learning process. "Problem-based learning" (PBL) in teacher education also offers a possibility of deploying moments of chance in teaching in creative ways. PBL dates from the 1960s, and has spread from some areas of clinical training to inspire many variants. Drawing on constructivist principles of structured inquiry and discovery learning, PBL is increasingly popular in training and workshops offered to teachers (cf. Gravells, 2012; Pecore, 2012). It has been recognized as "one of the more coherent pedagogical approaches in higher education" (TLRP, 2009, p. 28).

Based on the idea that "the starting point for learning should be a problem, query or puzzle that the learner wishes to solve" (Boud, 1985, in Boud and Feletti, 1998, p. 1), PBL seems to express an awareness of the role of complexity in education. In particular, PBL seems to respond to lifelong learning's discourse of pragmatism by asking what students "really" need to learn and where, using "real" situations, sequential components, and sufficient complexity to engage both students and teachers. PBL is not about problem-solving itself, but is, rather, concerned with deploying problems as operators in order to increase both knowledge and understanding and a set of generic (social and professional) skills and attributes. PBL, despite failing to provide evidence that it actually teaches more or better, claims to improve students' capacity to solve new problems in spontaneous, versatile and meaningful ways compared with those who acquired the same information by more traditional means (e.g. Major and Palmer, 2001).

However, it's unclear whether PBL can actually operate in the confines of a traditional curriculum. The Teaching, Learning and Research Programme's initial study in 2004, for example, identified some advantages to the approach, but later also found cases where it failed to meet students' expectations of learning, teaching or their own role, leading to very high drop-out rates in health contexts (TLRP, 2009). This dysfunction may be down to its use in "hybrid" curricula where PBL is appended to more traditional approaches, attenuating its positive effects. Some critics have also suggested that PBL's effectiveness is undermined by a tenuous link between theory and practice (e.g. Colliver, 2000). It could also be argued that its structure and focus on "attributes" such as interpersonal skills and teamwork constitute a source of socialization which actually undermines learners' autonomy by presuming an emotional immaturity in need of remedial help. Teacher educators need to be aware that PBL's focus on "applied solutions to everyday problems" may be another pseudo-utilitarian attempt to reduce education to a simplistic engineering task (Fendler, 2008, pp. 22–23).

From a theoretical perspective, this particular difficulty in PBL can be understood through a distinction between possibility and virtuality. Any group of people involved in an ordinary activity is complex enough to constitute a "multiplicity of multiplicities" with degrees of variation, difference and intensity between them (Adkins, 2012, p. 508). These dynamic multiplicities highlight a problem with "possibility", in that it is too like the current: the possible resembles the present and is always produced "after the fact", as a kind of principle of generalization which, therefore, misses the event (Deleuze, 2004a, p. 263). Creative education,

therefore, should not be about the possible, but about the virtual source of intensity in pure difference. This virtual ruptures our relation to the real and our expectations of it, radically excluding "possibility" on these grounds:

> Difference and repetition are in the virtual ground and movement of actualization, of differentiation as creation. They are substituted for the identity and the resemblance of the possible, which inspires only a pseudo-movement, the false movement of realization understood as abstract limitation. (Deleuze, 2004a, p. 264)

Rather than an impossible search for solutions to these complex movements, creative pedagogy becomes a reclamation of the notion of "problem" from those who conflate it with "solution".

For, Deleuze argues, it is Kant who puts problems at the centre of Ideas (1969, p. 70), following this analysis into Bergson's philosophy, where movement and multiplicity further disrupt any sort of dualism by their immanence to matter. Transcendent forms can no longer be considered simple objects, and perception becomes a synthetic, problematic mix in which we participate. Thus a pedagogy of these problems places them at the heart of learning processes, granting them very creative qualities. For Deleuze, the freedom to take decisions, actually creating problems themselves, is the "semi-divine" power of destroying false problems to allow a "creative upsurge of true ones" (Deleuze, 1998, p. 15). Problems necessarily form part of learning, which "allows us to follow on from problems" (Williams, 2003, p. 135). Thus, to pose a problem is not to solve it, since any solutions "overlay" their problems without exhausting them (Deleuze, 2004a, p. 203), remaining sub-representational events. Hence, the idea that a problem should be set and then solved is infantile, given that posing a problem already presupposes the conditions of its solution. It is the schoolmaster, he says, who sets problems, and the pupil who must solve them, based on a social prejudice in favour of the ready-made in both pedagogical content relations and interactions.

Deleuze does not just criticize the schoolmaster/pupil relationship in this context, therefore, but explicitly relates the process of learning and apprenticeship to these problems as an ethical choice of affirmation. Our most important task is determining problems and realizing in them our power of creation and decision, he says (Deleuze, 2004a, p. 337). A problem does not indicate ignorance, but, rather, the nature of Ideas as such, because problems are themselves "affirmations of differences" (they bring problems of their own and thereby testify to ontological

differentiation) (Deleuze, 2004a, p. 336). Indeed, the creative posing of a problem begins a process of Bergsonian intuition, whereby posing problems leads to an awareness of difference and, ultimately, real time (Deleuze, 1966, p. 3).

The openness of problems is central to this. For Deleuze, creativity as a mediation with the outside is intimately linked to learning, which in turn involves an act of physical combination:

> [C]omposing the singular points of one's body or one's own language with those of another shape or element, which tears us apart but also propels us into a hitherto unknown world and unheard-of world of problems. To what are we dedicated if not to those problems which demand the very transformation of our body and our language? (Deleuze, 2004a, p. 241)

This combination must implicate "another" element, since it is this link with otherness which "tears us apart" and allows change to happen. This change is a violent, physical transformation which introduces creative novelty in the form of "worlds" which are not just different but "unknown" and "unheard-of". These new worlds, for Deleuze, can be understood as problems whose demands, he asserts, hold precedence, constituting a sort of ethics. The overriding concern of this ethics, on these terms, is difference, since different orders of problem exist where each order is "a different expression, a different realization or projection" of the basic differential schema (Olkowski, 2011, p. 125).

Thus, for Deleuze, the problematic as such is of crucial importance because it designates the objectivity of Ideas and the reality of the virtual. Deleuze wants to think a world without essences, and to do so replaces essences with concepts, and identities with problems. The problem is "necessarily differentiated" by these virtual relations and, instead of being solved, is developed or perplicated, complicated and explicated (Deleuze, 2004a, p. 351). Problems as such, therefore, are once again constituted by movements beyond them, which enable the connections that constitute them as rhizomatic networks or material events rather than fixed entities.

Thus, although problems make up our world, they do not come ready-made, but must be created. In line with this view of the singularity of teaching and learning situations, Roth and Lee (2007, pp. 190–191) distinguish *praxis* ("moments of real human activity that occur only once") from *practice* ("a patterned form of action") because everything has consequences and there is no time out from a given teaching

situation. Here, problems cannot be posed by assuming that a solution exists for them, but, rather, by making new links and constantly developing new maps for experience to engage with.

At a purely practical level, this undermines implausible "transmission" models of pedagogy which postulate universal knowledge that can be simply transferred across contexts. Problematization replaces this with an exploratory pedagogy redolent of the research inquiry processes discussed above. An example would lie in the type of teaching that sees the teacher–learner relation itself as a multiplicity and teacher education practice as a collection of problems whose development would be the teacher educator's prime practical and ethical concern. In this sense, problematizing corresponds to the creative desire to "broaden our sense of alternative futures" (Jones, 2009, pp. 77–78). Creative responses to problems must respect their positivity in this way and their relation to practice as inquiry and experimentation.

Inquiry

Inquiry is central to teacher education, and arguably one of the most important ways in which practice and research meet for pedagogical ends. Teacher education is often equated with a process of inquiry itself, or the practice of determining collective goals, experimenting with practices and entering into "open and trusting dialogue" (Sachs, 2007, p. 16). As Sachs's focus on the discursive aspects of the process suggests, this equation is far from self-evident in lifelong learning, however. Lifelong learning contexts such as FE are often singled out for their lack of engagement with research, and FE teachers are frequently identified with teaching, rather than research. On the other hand, "[t]he level of research-informed practice, professional development and thinking within further education has increased" (IfL, 2012b, p. 7) as the sector aspires to a stronger research profile through professional development activities increasingly based in formal and informal inquiry.

Several reasons might be suggested for this, ranging from the desire to emulate the HE organizations with which FE has increasing contact, to the wish to reduce management and consultancy costs by conflating initial training with individual research projects inspired by an organizational agenda of increased throughput. It is at least possible that the two poles are in fact interdependent, as universities become the model for what Gerald Raunig (2013) has described as the becoming-factories of the knowledge society, where knowledge workers (staff and students included) precariously respond to a neoliberal agenda. Black *et al.* (2003, p. 21), for example,

warn of a "perverted model of discovery learning" in education research, where research which claims to be inquiry-based is, in effect, reproductive. Here, they argue, the inquirer (i.e. the researcher) knows what they want but doesn't let on, in order to get others to "discover" it for themselves.

One way of countering this risk is to focus on chance by insisting on the immanence of learning to inquiry as a process rather than an established practice disseminated for the purposes of transmission. Unlike formal research, such inquiry is a crucial and on-going process which involves making choices in unpredictable circumstances. It is both vital and improvisational, since inquirers "can't predict which rabbit hole we will want to dive down" (Gallas, 2011, p. 39). Moreover, personal experience suggests it is precisely these "rabbit holes" which are best remembered by learners, perhaps because they are able to bring "something extra" that escapes the contractual basis which predefines professional identities before they have had a chance to be explored (Daignault, 2008, p. 57). It is important that teachers do not waste the chances of learning breakthroughs in unexpected moments by not looking for them (Derrick, in IfL, 2013a, p. 24). It seems even more important that they should not actively plan them out.

Instead, the inquiry process reflects a "pedagogy of problems" because it works by divergence and the critical consideration of multiple outcomes and possibilities. A "yes but" in inquiry (Cordeiro, 2011) concatenates like Deleuze's stuttering "and...and...and" to explore the different (and differing) facets of a problem which is never actually given and whose lines of flight are themselves worthy of thought. Learning and thinking share this stuttering moment of "puzzlement" which Deleuze's discussions of creativity identify in thought. This is one of many parallels that have been noted between Deleuze and Dewey (e.g. by Semetsky, 2006; 2008b). Cordeiro reminds us that critical thought, for Dewey, begins when a learner confronts "the forked road" where "the origin of thinking is some perplexity, confusion, or doubt" (Cordeiro, 2011, p. 113). Thus, creative practice can be enhanced by inquiry which incorporates the unpredictability and puzzlement of being faced with the unknown. Transforming the unpredictability of inquiry into certainty by formalized practitioner research runs the risk of losing that which Gallas (2011) sees as crucial to "healthy" lifelong learning itself.

Experimental encounters

Learning must involve experimentation, or the seeking of interesting problems which emerge in the process of experimental thought (Deleuze

and Guattari, 1994, p. 111). "That any form is precarious is obvious", Deleuze states, "since it depends on relations of force and their mutations" (Deleuze, 1986a, p. 138). If it is the case, as Deleuze holds, that "it is by means of difference that the given is given" (Deleuze, 2004a, p. 286), then creative experimentation is explicitly equated with thought itself. Thought's groping experimentation is neither respectable, rational nor reasonable: "[t]o think is always to follow the witch's flight" (Deleuze and Guattari, 1994, p. 41).

This point again links Deleuze's aesthetic theory and his ideas on learning. The key thing for an artist like Bacon is not to reduce the figure to immobility (Deleuze, 2004b, p. 1), just as, in defining learning, Deleuze insists on the way the learner composes their own body with the material around them. Learning, for Deleuze, does not take place in the relation between a representation and an action, because this would be a reproduction of the Same. On the contrary, it always implies "an encounter with the Other" (Deleuze, 2004a, p. 25) because the learner must be somehow affected by something outside. The strategy suggested by Deleuze is to experiment and connect new ideas, in constant vigilance for the potential of organization to dull the intensity of the cutting edge of creativity. Although this rules out the act of "application" in principle, it also encourages the implication or recombination of ideas or problems in experimental ways. On this view, a practice of experimental thought would imply "a violent training, a culture or *paideia* which affects the entire individual" (Deleuze, 2004a, p. 205).

This emphasis on experimentation as an aspect of creativity is not new to educators. Theorist Phillippe Meirieu describes the teaching and learning process as essentially creative, suggesting that we "knock things together" and "make the living with old fossils, improbable arrangements" in which "we find a little joy that we call 'creation' " (Meirieu, 2011). The compounds that we "knock together" in creative gestures, even at the level of language, are not themselves radically new: they are vestiges of the known in the form of existing items recombined. What matters, as we have seen, is the novelty of the relations between terms, not the terms themselves.

Interpreting Meirieu's comments in a Spinozist sense, the joy of creation is precisely the powerful knowledge that we can further affect and be affected by these relations. This is an important ethical move. From the perspective of teacher education, skills and knowledge in this light seem insufficient guides to emergent practice when the latter's dynamism is its defining feature. Instead, therefore, a "shock to thought" involves more than presenting a series of more or less difficult or unusual ideas

to our existing ways of thinking. Its goal is to unearth "the new, remarkable and interesting that replace the appearance of truth and are more demanding than it is" (Deleuze and Guattari, 1994, p. 111). It is more demanding because such activity literally creates the spaces in which lifelong learners' subjectivities develop. If art must form the non-artistic by awakening and teaching us to feel, creative thought does not require experimentation, because it is synonymous with it.

The relevance of this for teaching and learning may seem unclear, but learning is profoundly altered by the view that we do not know what these bodies of relations, concatenations and assemblages can do. For Deleuze, the body is a fully material phenomenon defined by equally material affects and intensities such as speeds and various thresholds. An organism, he suggests, is "a set of real terms and relations (dimension, position, number) which actualizes on its own account, to this or that degree, relations between differential elements" (Deleuze, 2004a, p. 233). Crucially, democratic learning must accept its materiality, where knowledge production does not centre within a single material body. It focuses on the actual affective impact on the body of learning situations and the signs, sensations and affects which compose the body as a multiplicity in becoming.

It is, therefore, hard to speak of pedagogy from the point of view of Deleuze's philosophy without taking account of the role of affect within such a pedagogy. Indeed, for Cole (2008, p. 81), affect and pedagogy are synonymous and imply that "the materiality of change, the act of learning" is identical with the passage between states of bodies which affect one another. The concrete implication here is that pedagogy should be increasingly "sensational" in the sense that it should provide the possibility for affective rather than purely rational encounters. Sensation is never an individual event; it involves, instead, a "fundamental and exterior encounter" (Scott, 1998, p. 125). This "exteriority" is crucial to Deleuze's position and underpins the ethical implications of a "sensational pedagogy" which cannot ignore these impersonal becomings (cf. Springgay, 2011). This is why, for Deleuze, the only way in which transcendental principles of genesis can be approached is by sensation (Zepke, 2011, p. 75). Sensations are the result in lived experience of the intensity of differential movement at an ontological level prior to this actualization. They play a fundamental role in change as "the master of deformations [and] the agent of bodily deformations" (Deleuze, 2004b, p. 36) because they are the agent of synthesis and, therefore, a motor of becoming. Here ethical action cannot be measured against an ideal or pre-established code, but can be measured against its operative creative capacity.

Thus, sensations necessarily work through encounter in the form of a sensation that something is different, albeit in an unidentifiable way (Williams, 2005, p. 165). If this change could be identified, Williams argues, it would not be new, since it would not actually imply a break. Sensations are, therefore, not sense data, which would imply that they can be "understood" by a given body already constituted as a phenomenological subject. Rather than assume as given a subject with intentionality capable of apprehending sense, Deleuze examines how we become what we are through a co-creative act of becoming. Sensations, on this account, are defined as vitalistic, material flows: they are vitalistic because they are constituted by an essential form of dynamism, which individuates them through the de-subjectified workings of a "non-organic, anonymous force or life" (Del Rio, 2005, p. 62). They are, nonetheless, material because their effects are concrete, changing everything in actual experience.

These ways of being materially affected by signs and sensations can be understood as explicitly artistic, as we have seen, having examined Antonioni's films and practices in this light. Creativity there was understood "diagrammatically" and involved maintaining a distance from both chaos and order. A "plane of consistency" must be constituted with the flexibility necessary for the new to emerge from chaos. For example, people and objects can have high impact in classroom creativity because they assist the proliferation of "surfaces to work on", when new networks of activity develop and interlink through sensation. Such "folding" occurs, for De Freitas (2012, pp. 566–568) when a classroom visitor comes or when the students first meet materials such as clay or oil paint. By folding, she means that transversal connections between learners and objects on the flat surface of pure difference can be established.

On this view, an apprenticeship in the signs and affects of teaching and learning is important if novel training ideas are to prepare educators for the ethical implications of pedagogical encounters. This introduces the notion that a pedagogy based in this encounter will, by definition, be transgressive because it interrupts given ways of being. Hickey-Moody and Haworth (2009, p. 90), for example, argue that responding to signs in affective ways achieves this:

> [m]aking meaning and exchanging knowledge online or through non-verbal affect at a music concert are two examples of ways in which learning and meaning-making in community spaces happens through affect in ways which are socially transgressive.

This particular account of "transgressive" activity is interesting because of its references to the context of mass-media events. Rather like the "small ads" and "personal columns", promoted by Semetsky and Lovat (2008) as possibly valuable sites of education research, there remains a doubt as to how far such mass activity really is socially transgressive.

The point, however, is that creative activity can be transgressive, provided it is understood in its relation to deterritorialization of a more or less absolute sort. This helps explain the potency of artistic practices such as those described above and their pedagogical capacity. If the effects in Antonioni's films induce a stutter, it is so that they can provoke new ways of thinking, feeling and perceiving the world composed of a multiplicity of living relationships. Certainly, Deleuze's treatment of sensation as undifferentiated "waves" (Deleuze, 1981b) would seem to exemplify a certain powerless banality (Joyce, 1985, p. 27). But if the relations which result from being affected by sensation perform an ethical task, it is that of restoring our link with these material sensations and, therefore, with the world (O'Sullivan, 2010). Here the "destabilizing moment of the encounter" with such sensations becomes the ethical *per se* (Ruddick, 2010, p. 23), transcending otherness as identity and imposing a responsibility for the particularity and singularity of a fugitive, processual otherness in becoming.

9
Errors and Learning

This form of alterity shakes the foundations of essentialism, imposing a creativity which falsifies the given and countermands received wisdom. From Deleuze's perspective, a fear of falsification, or error, suggests a counterproductive attitude to change which relies on unrealistic expectations of life itself. When Parker (2009, p. 31) asserts that the attributes of given entities cannot and should not be understood as being limited to those they appear to have, the point is that becoming and change replace truth as a focus in lifelong learning, drawing our attention to the "powers of the false" in learning generally. By raising the false to power, "life frees itself of appearance as well as truth", Deleuze claims (2005b, p. 140).

This is because falsehood, for Deleuze, has genetic powers, partly because error disturbs orthodoxy with its powerful evidence of the potential of knowledge to change. However, the notion of error must not be confused with banality and nonsense, both of which are more dangerous than simply getting things "wrong":

> Teachers already know that errors or falsehoods are rarely found in homework (except in those exercises where a fixed result must be produced, or propositions must be translated one by one). Rather, what is more frequently found – and worse – are nonsensical sentences, remarks without interest or Importance, banalities mistaken for profundities…badly posed or distorted problems – all heavy with dangers. (Deleuze, 2004a, p. 191)

Deleuze's position here exemplifies his pluralistic epistemology. Things always have several senses, a pluralism which itself expresses not the existence of different points of view but their enfolding in a nomadic

subject, as forces and the becoming of forces operate through relations. In this way, interpretations hidden in one another replace the idea of a thing, "like masks layered one on the other, or languages that include each other" (Deleuze, 2004c, p. 118). So, because there are worse things than simply being wrong, a creative pedagogy would actually seek out error in order to engage with more profound issues of the production of truth and falsehood.

Truth's becoming

Falsehood is an important part of the complex problem of lifelong learning teacher education, because it reminds us that our actions are not simply the results of some benign sense of organization or will. Falsehood is, therefore, not a poor copy of something which lacks truth to make it complete, but something positive in itself and, therefore, a model rather than a copy. Deleuze again draws inspiration from Nietzsche's belief that "to renounce false judgements would be to deny life", since untruth is "a condition of life" as will-to-power (Nietzsche, 1990, p. 36). Failing to do this involves repeating customary value-judgements, he asserts, unlike acts of knowing, which are necessarily synonymous with creating (Nietzsche, 1990, pp. 142–143). A grain of wrong, Nietzsche quips, is "even an element of good taste" (Nietzsche, 1990, p. 151).

This link between falsehood and ethics offers interesting perspectives on the role and treatment of falsehood in lifelong learning teacher education. If we accept the view that the false has a power unavailable to truth, we may need to look beyond hierarchical models of learning for insights. Knowledge itself, for example, can be treated as a creative, rather than a repetitive, phenomenon both within the classroom and without. For Deleuze, knowledge is distinguished by formed relations, not by Platonic forms or other abstract generalities. Derived from the idea that knowledge is an object to which memory can return, too often the act of knowing tends to distribute truth and falsity according to a false understanding of a given problem, namely that it has finished distributing itself. In this respect, as Arnaud Bouaniche suggests (2007, pp. 115–116), Deleuze once again recognizes a Kantian influence. Like Kant, he sees our relation with knowledge as essentially problematic and a matter of interaction, unlike, for example, the Platonic view of a much less complex binary between matter and its Form.

Deleuze also again draws heavily on Bergson, who is keen to distinguish between useful and real knowledge. This is not simply because he seeks more effective ways of knowing, but because the difference is

a key indicator of the extent of our actual freedom, which comes from knowing as an ethical activity (Bergson, 1939/2010, pp. 207–208). There is a vital difference, he says, between a situation when we *watch ourselves act* and one where we *actually act*. In the former case, we consider the elements of such an experience as detached or separated from one another. Here, knowledge is useful on the condition that the objects of consciousness be extended, delineated and distinguished from each other. But, in the latter case, the elements of experience melt into one another, and an effort of thought is needed to plunge into this flux in ways which allow us to actually think about the real nature of indivisible actions and a theory of liberty. For Bergson, when we watch ourselves act, we do so with a view to what use can be made of our actions, thus missing out any actual knowledge of them. Freedom comes from action, not its spectacle.

Hence, for Deleuze, concrete thought and truth can only emerge as if they were the limit of a problem which has implausibly been "completely determined and entirely understood" (Deleuze, 2004a, p. 204). "A new Meno", therefore, would see that knowledge is a result which depends on experience, not a form for which experience should strive. Learning which takes place when genuine problems are explored is the genuinely transcendental structure "which unites difference to difference, dissimilarity to dissimilarity, without mediating between them; and introduces time into thought" (Deleuze, 2004a, p. 206). By this, he means that the singularities encountered in experience disrupt and falsify thought because they are materially other to it. Coming from the outside, their effect is to trouble the flow of ideas and induce a stutter.

Questions of becoming

One way of seeing the implications of this is to consider the use of questions in learning. Instead of a narrow focus on skills training influenced by human capital theory, it is argued, the sector needs models of learning with questioning at their heart. These should foster "skeptical, critical analysis" where "all questions are open questions" (Taylor, 2007, p. 89), and where "[h]igher order" thinking skills are favoured over "correct answers to any imaginable question" (Bramming, 2007, p. 46). A relevant question, therefore, is "open to the possibility that the experimental object might bite back" (Mackenzie, 2005, p. 61).

This attitude is partly reflected in current teacher education practice. In an attempt to recognize that classroom interventions are merely part of the learning experience, we are frequently advised to adopt the role of

facilitator rather than instigator of learning, leading learning out of the learner. By doing so, educators both promote and model a role which complements a curriculum based on itemized, criterion-based assessment. Here, techniques based in enquiry practise discovery learning, problem-solving and questioning strategies, and reflection is encouraged to challenge assumptions and develop personally as well as professionally. These teacher-facilitators or "learning professionals" respond to a new learning culture and are not just midwives to knowledge, but to the "knowledge society" itself (Goodson, 2003, p. xiii).

To accomplish this, Race (2005, p. 113), for example, suggests "learning through answers to questions" driven by students' queries. It is, of course, very common for teacher educators to use a range of eliciting techniques to gain information about their learners, and manuals regularly include advice on how to ask different "types" of questions. Petty (2004, p. 189), for example, suggests data recall, naming, observation and control as "lower-order" questions compared with higher-order problem-solving or reasoning questions.

Too often, though, pedagogy reinforces this relation, inculcating docility. Sometimes, the aim in using different questions is to provide differentiation, and Keeley-Browne (2007, p. 127) lists a set of techniques for actively involving learners in questioning. More often, though, questions are promoted as one-way, teacher-controlled technical interventions, designed to provoke and assess the ability to display itemized knowledge. Examples include Petty (2004, p. 181) and Armitage *et al.* (2012, p. 183), who both present the practice of questioning as largely (if not purely) teacher-originated. Lambert and Lines (2000, p. 148) take a similar position, as do Reece and Walker, who promote the technique of "pose-pause-pounce" (2007, p. 282), where it is the teacher who is in charge.

Claire Colebrook (2008, p. 35) has suggested that, if learners are "led out" towards a given object, this involves a self-mastery whose parallels with the seduction of control are often troubling reminders of the mechanics of oppression. For example, "open" questions are promoted as ways of deepening student responses. But the openness of a question depends as much on tone as on syntax (Deleuze and Parnet, 1996, pp. 27–28), and every teacher knows how to use interrogation to close down discussion very effectively. Indeed, questions are not just useful ways of conveying information, but, for Deleuze, serve to establish and maintain certain relations. However, Deleuze is less interested in denouncing the way power is established by these relations than in the way they perpetuate a particular kind of "either-or" dualism in thought.

Questions are always preformed and calculated on the answers they are supposed to provide, and one is either questioner or questioned, person or learner, teacher or taught. In a sense, he argues, we have already been "had" by such questions, since whatever we might have wanted to say has always already been decided by someone else.

This approach to questioning also recognizes a debt to Socratic maieutics, according to which trainees and learners alike are encouraged to activate existing knowledge and potential in order to achieve a particular learning goal: a series of carefully planned questions leads learners towards "the statement of a principle or truth" (Neary, 2002, p. 69). However, as Bogue (2001, p. 16) points out, this practice implies a philosophical tradition which does not in itself deny the complexity of the objects of perception (see also Abbs, 2003). Socrates famously claims to induce perplexity by means of this inquiry, but has a fondness for pointing out contradictions and apparent paradoxes with (leading) questions steeped in irony and sarcasm. Teacher educator Geoff Petty (2004, p. 191) quips that the "moral" of Socrates' execution is "don't ask questions that are too difficult", but Socrates' death is the inevitable conclusion to his deliberate search for the limits of his own knowledge, and thus has much in common with the kinds of problematizing described above. As part of this process, the perplexed end-state of maieutics is always "at the onset of thought's encounter with the contradictory perception" (Bogue, 2001, pp. 16–17), introducing a moment of elenchus or unblocking which allows authentic thinking to take place.

The point here is to replace the persistent focus on getting teaching and learning "right" with a focus on exploring divergence as the central pedagogical activity. Really useful questions are not limited by their presumed answer, but are, rather, both epistemologically creative and ontologically genetic:

> The power of the question always comes from somewhere other than the answers, and benefits from a free depth which cannot be resolved. The insistence, the transcendence and the ontological bearing of questions and problems is expressed not in the form of finality of a sufficient reason (to what end? why?) but in the discrete form of difference and repetition. (Deleuze, 2004a, p. 132)[1]

The ways in which this creativity is denied by "questioning techniques" which serve to establish and maintain control rather than effectively promote or assess learning deserve more attention. Indeed, this focus on questioning as a technical intervention obscures four risks in pedagogy:

first, the potential of radical questioning and perplexity implied by maieutics is undermined by this reification of both form and content in training; second, the negative effects of power in the student–teacher relationship are concentrated on the former; third, interaction is reduced to the reproduction of facile dualisms which actively counter the possibility of affective change or becoming; and, finally, techniques such as questioning are promoted for their pedagogical effectiveness when their actual purpose is subjectivation.

Examples of how these risks might be countered exist: not every question needs or deserves an answer for Inglis and Aers (2008, p. 160). A good example of this qualitative division between good and bad questions can be found in the distinction, common in English language teaching (ELT), between "display" and "referential" questions. "Display" questions, for example, are used when teachers want learners to show they know something. They are often closed, concern the learner's ability to recall information or knowledge, and exemplify the type of convergent thinking often seen as an antithesis to creative thought (Runco, 2007, pp. 10–11). As Black *et al.* (2003) suggest, they also reduce the amount of time spent by learners interacting, and, perhaps more importantly, reduce the quality of dialogue between teacher and learner. "Referential questions", on the other hand, do not imply answers decided in advance, leaving space for divergent thinking and a more connective, non-linear development of ideas. They also concern things that teacher and learner may actually want to know – including whether or not something has been learnt. Such questions might actually be worth discussing, because their solution is not planned upstream as a form of knowledge to be acquired, thus enhancing the relational quality of what is learnt.

This brings a number of benefits, according to Shomoossi (2004). Referential questions increase the quantity of learner output, adding to the flow of information from students to the teacher. But they also constitute near-normal speech, thus providing a setting in which problems can be worked through without a sense of being forced to go through the motions of artificial problems in an artificial teaching environment. They also provide a chance for flows in communication to be broken by the unplanned contributions which language, an exemplary open system, throws up rhizomatically. Stevick (1976), for example, suggests that a pedagogical method can be inflected by this kind of interaction.

This display/referential split also serves to define a distinction between different sorts of problems in pedagogical practice. One type involves the application of existing knowledge by deduction and, by extension, display questions. These might be termed "vertical" problems, which

depend on a higher order of explanation being applied to them. A second type demands experiment by induction and, to facilitate this, referential questions. These might be called "horizontal" problems because they lead to a multiplication of possible outcomes with no *a priori* hierarchy. A third type demands new explanations by retroduction, which serves as a key to a pedagogy of problems. These might be termed "diagonal" problems, since they involve the suggestion of new explanations, often drawing unexpected connections with falsehood. When learning is situated in this way, questions provide the falsehood of an "open field" for a variety of solutions to emerge (May and Semetsky, 2008, p. 147). This unfolding can result in feelings of loss or disorientation, but only in reference to the fixed point of the master's own trajectory (Gregoriou, 2008, p. 96). On the other hand, a genuinely open field can provide the stuttering moment of unthought which is essential to creativity. It is a field where we work "only at the frontiers of our knowledge, at the border which separates our knowledge from our ignorance and transforms the one into the other" (Deleuze, 2004a, p. xx).

This brings error into creative pedagogy, since it disrupts codifications (such as what is held to be true) by undermining its possibility with the chaotic outside it evokes. Accordingly, subjects are not changed by experiences, but are constituted and reconstituted by them in chaotic and irrational ways which draw the actual from the virtual, becoming fixed by force of habit (Deleuze, 2004a, p. 94). Here, the subject is a creative product of a complex passive synthesis of affections, which takes place at a level of biological composition where no human organization has yet been constituted and, indeed, where none could operate. That this chaotic environment is a challenging one is obvious, implying that survival involves a particular form of highly dynamic "larval" subjectivity:

> A composed, qualified adult would perish in such an environment. The truth of embryology is that there are movements which the embryo alone can endure: in this instance, the only subject is larval [...] the only patient able to endure the demands of a systematic dynamism. (Deleuze, 2004c, p. 97)

For Roy (2008, p. 167), bodies are most useful to us in this state of "sub-determined" flux because it is here that they can be used to effect a becoming in time, learning from change. Hence, although the notion of solidity and its effects derives its apparent clarity from the habits and necessities of practical life, such habits cast no light at all on the essence

of things (Bergson, 1939/2010, pp. 224–235). For Bergson, the only way to perceive such solidity is by supposing a mind–body dualism in which pure things are somehow separate both from our perception of them and, indeed, from each other – we lose the world in an idealistic fantasy of independence. Bergson argues, instead, that perceptions themselves are material effects animated by the same movement that underpins all substance. Objects and their environment are thus "images", that is to say, both essentially indistinguishable from our perception of them and, Bergson unequivocally states, really existing as things independent of consciousness. They exist autonomously, shorn of anything consciousness might add, but they also accrue all sorts of relations beyond our awareness of them (Bergson, 1939/2010, p. 460). It is by activating this relation with the duration of images that we can achieve consciousness of a fundamental relationship with matter, or, rather, the pure movement which constitutes it: change comes from encountering that which we are not, placing error at the heart of learning and creativity.

Becoming nomadic

Subjects who operate in this way are themselves "manifold problems" (Howard, 1998, p. 119) which embody an unthought within thought and a stuttering form of creativity. At its (internal) limit, this nomadic stuttering is suggestive of the profound ethological implications of what might be called a "post-human era". Rather than announcing the extinction of the human species, for Hayles (2001, p. 146), this means "a privileging of informational pattern over material instantiation", a relation derived from complexity and evolutionary theory. Internal mechanisms of mutation and repetition (tending towards order) accompany those of selection in the development of biological organisms. What is truly *vital* about the organism is its virtual capacity for becoming, introducing a very different view of the body itself "as an originary prosthesis that we all learn to operate at birth" (Hayles, *ibid*.).

   This perception of the body places learning at the centre of its "informational pattern", not least because the body, on this view, is continually supplemented by other prostheses, for example in its articulations with (more or less) intelligent machines. Deleuze's approach recognizes this inasmuch as it incorporates a necessary "informational pattern" (movement) within "material instantiations" (otherness) in the form of becoming. This promiscuity of otherness provides the basics of what Cole (2008, p. 32) welcomes as a "politics of difference" whereby otherness is integrated into education. Learning, here, is not instrumentalized

in relation to the discovery of knowledge or even subservient to the needs of the economy or its discourses, but, rather, idealized insofar as its basis in material encounters and the operation of creative difference are seen as fundamentally ethical acts.

This practice of activating our relation with the dynamism of things is what Deleuze calls the "perpetual migration of intensities" (Deleuze, 2004c, p. 257) of nomadic thought. As an encounter between what we already know and what it is possible to know, it is nomadic because it operates outside the pre-mapped territories of understanding, making transversal links and new, unmapped relations in unenclosed conceptual space. It provides a creative "resistance to the present" (Deleuze and Guattari, 1994, p. 108) by undermining what is granted to thought. What thought can actually claim by right (creativity, speed, a capacity to express a whole) is very different from what it is granted in fact (a good nature, a tendency to seek the truth, systematic and regular activity). This is why sense and value replace truth and falsehood in Deleuze's philosophy, giving it an ethical tenor which focuses on what is important or interesting rather than what is deemed to be true. The nomadic subject deploys chance as a "principle of uncertainty" because, rather than being reducible to finality (in terms of method, model of knowledge or proof, for example), thought's movement is activated by multiplicities. If working near this moment is potentially dangerous, it is, for Deleuze, simply more interesting and important than repeating questions of fact or behaviour. Such repetitions seem banal and, pedagogically speaking, lead teachers to focus on trivial issues and false problems rather than the affections of which classroom bodies are (becoming) capable.

On this view, occupying existing spaces in thought and practice is not enough for creative learning, and new ones must be carved out by a nomadic war machine. For example, when learning becomes a process of inquiry, the distinction between research and practice which defines the two spaces is revealed as largely one of convention. A new space is opened up where the two are inseparable because both are based on the same radical immanence of knowledge to (creative) inquiry. This is particularly evident to teacher educators working in the turbulent context of lifelong learning. Everyday practice is one of adaptation to new information, often gleaned from classroom situations for which pragmatic solutions must be put together in the light of the improvisations, chances and errors which constitute them. New spaces are constantly being opened up and need to be reconfigured by a thought process which is both nomadic in its distribution of space and machinic in its activation of creativity.

10
Lifelong Learning between Practice and Ethics

This is what Deleuze means when he repeatedly claims to eschew resentment, negativity and oppositional criticism in favour of "joy in creation" (Deleuze, 2004c, p. 134). Ethical activity for Deleuze cannot be a negative process, but is an "aesthetics of sobriety" which constitutes a practical engagement with literary, philosophical and social practices in everyday life. Passive resignation to war, wounds and death is a sign of repetition and *ressentiment* for Deleuze (2004b, pp. 170–173), since simply accepting things the way they "are" refuses to see that they can and will change.

The ethical implication for lifelong learning teacher education is that practice is never a case of simply accepting things or resigning oneself to events, but, rather, opening up to their various connections and differentiations. This is why Deleuze argues that no critical gesture is complete without its clinical or therapeutic moment, and that this moment can often be more successfully achieved by artists than by clinicians (Deleuze, 1967). Whatever their weaknesses and contradictions, Deleuze's ideas cannot, therefore, be used to simply demonstrate that debt (or any other single term) lies at the heart of a problem, since, for this to be the case, the term would have to transcend its actualization in the problem. What therapy, then, does Deleuze offer for the problems he identifies?

Becoming (really) healthy

Deleuze's work has little or nothing to say to those who see lifelong learning as a form of therapy for vulnerable subjects in need of help (cf. Hunt, 2000; Horsdal, 2007). The first conclusion we can draw, however, involves opposing those who would foreclose creativity

(Williams, 2008, p. 141), especially by reducing it to productivism or abstraction. Pedagogy and research need to continually remind themselves that problems can be explicated but not solved. So, the first positive conclusion for lifelong learning is the development of a more effective ethics which keeps its eye on change rather than fixity. Practically speaking, this might be helped by actualizing the networked, ecological nature of learning in lifelong learning in practical ways. This is one route to a form of ownership in lifelong learning for practitioners who, as we have seen, are used to having things done to them. The advantage of this complexity, for Brown and Cherkowski (2011, p. 63), is that the development of a complex "ecology" of learning is more "healthy" than the maintenance of relations of command and control:

> How can educators truly own their learning when professional development is funded by school districts and targeted to improve perceived system deficits? For each project, we wonder at what point organizational meaning and personal meaning will connect to create a healthy life and learning sustaining ecology?

On this view, it is "unhealthy" to assume that practice can escape the consequences of such ecology without innovation and creativity, and professional competence is no more than a palliative slogan which evades the central problem of the heterogeneity of the real, thus failing to prepare practitioners for it. For Gallas (2011, p. 33), choice, curiosity and gut instinct are central to this preparation. This has the basic ethical value of avoiding reductive materialism which substitutes things for relationships (Moulard-Leonard, 2012, pp. 844–845). An ethics based on Deleuze's replacement of things with the effects of differentiated elements constituted in a differential (mathematical) space (Olkowski, 2011, p. 125) disrupts this reification from the ground up.

Becoming (creatively) worthy

Second, practitioners in lifelong learning can ask themselves about their own relation to events and the value which this kind of life implies. Either ethics makes no sense at all, Deleuze says, or it means not to be unworthy of what happens to us (Deleuze, 2004b, p. 169). So being healthy is not enough: we need to become worthy of the powerful forces of life in lifelong learning. Deleuze reminds us that discourses of health are themselves suspect, and that creativity, growing like a crack in a state

of normality, might actually depend on a certain refusal of the conditions of "normality":

> If one asks why health does not suffice, why the crack is desirable, it is perhaps because thought only occurs by means of the crack and on its edges, because anything great or good in humanity enters and leaves by it in people quick to destroy themselves, and for whom death is preferable to the health we are offered. (Deleuze, 1969, p. 188; 2004b, p. 182)

There is dignity, he claims, in recognizing the necessity of life and affirming it rather than pretending or regretting that it cannot be otherwise. Aesthetic practices such as Antonioni's are, on Deleuze's terms, attempts to be "worthy" of events, playing out to a greater or lesser degree his ethical position or "a moral philosophy of creativity in relation to events" (Williams, 2008, p. 136). Less cryptically, it is possible to see "being worthy of events" as interdependent moments or practices leading to a final ethical statement about our relation with the world. What emerges is a driving responsibility for becoming the offspring of one's own events by embodying them: this is why "[t]here is no other ethic than the *amor fati* of philosophy" (Deleuze and Guattari, 1994, p. 159). We must, therefore, not lose sight of the "grand health" which events create for us by disrupting our ideas of wholeness and individuality. Being worthy of events implies a kind of rude refusal to be normalized, like the idiot in thought or the fool who refuses to accept common sense.

Becoming a (cinematic) body

Deleuze frequently refers to Spinoza's point that "no one has yet determined what the body can do [...] no one has yet come to know the structure of the body so accurately that he could explain all its functions" (Spinoza, 1996, pp. 71–72, Ethics III/P2.Schol). It follows that thought cannot be acquired or exercised as if it were innate. Both indicate that the pedagogue's task is essentially creative, "engendering the act of thinking within thought itself" (Deleuze, 2004a, p. 139). Thus on Deleuze's view, although we can and should pay attention to events as chance moments in order to become worthy of them, we often misrecognize them as ideal moments in linear time. Events need to be lived rather than identified in this way because their capacity for variation is what differentiates them from mere objects of contemplation. If this

were not the case, the world would not be an on-going process of differentiating trajectories, and there would be "no events and no intelligence either" (Olkowski, 2011, p. 128).

This is the intelligence of a world where we do not know what any single body can do. Being "worthy" of this possibility means affirming both the transformative potential of learning (St Pierre, 2008, p. 194; see also St Pierre, 2011) and the pedagogy of problems mentioned above. It's true that pedagogy must be based on some notion of change, but there is, for Deleuze, nothing at fault with the human condition apart from the fact that it can and should be extended (Ansell-Pearson, 2007, p. 10). Pedagogues can learn from artistic practices which are paradigmatic of this "going beyond" at the heart of creative becoming for Deleuze and Guattari:

> It is not just a question of saying that art must form those of us who are not artists, that it must awaken us and teach us to feel [...] [s]uch pedagogies are only possible if each of the disciplines is, on its own behalf, in an essential relationship with the No that concerns it. (Deleuze and Guattari, 1994, p. 218)

This relation with the future or the outside makes it impossible to generalize about these encounters with sensation. On the contrary, it is the particularity (haecceity) of such events that contributes to their ethical portent. Every sensation is a question, Deleuze and Guattari state (1994, p. 196), "even if the only answer is silence". This outside relation is *essential* in the double sense of being both necessary and ontologically fundamental. For example, as we have seen, artistic practices embodied in cinema's irrational cuts split the subject and introduces a caesura in time within which the subject becomes part of a new series. These irrational intervals use the undefined, floating perspective of the "gramme" to activate the outside of a space which is immanent to it as a defining feature. These grammes point to the thinker within and "a power of transformation", which is to say "the power to transform life" by revealing new variations and directions (Rodowick, 1997, pp. 196–201).

This also refines the unenlightening suggestion that cinema somehow makes us more creative by showing us how, where and when. Cinema's mobile perspective in time introduces many possibilities, including the "higher moral value" of this connection with the outside (Epstein, in Verstraten, 2012, p. 118). Given the creative need for a shock to thought, and, indeed, the current (de)moralization of the sector, the cinematic image may better exemplify the ethical nature of rhizomatic

work because of its functional capacity to produce irrational cuts and force the spectator to experience them. Teacher educators have much to learn from the movies.

Following Deleuze, one lesson is cinema's ability to restore an expressive relation between bodies and the material world. This matters because education has traditionally divided the material from the cognitive, exemplifying the hylomorphism criticized by Ingold (2008). This hierarchy in learning situations neglects the role of material (the body of the learner), and consequently much writing about teaching and learning (not unreasonably) "refuses to problematize the body out of fear for getting into the sexual dynamics of the classroom" (Zembylas, 2007b, p. 28). On this view, pedagogy can – and should – pay attention to this phenomenon by re-examining the role of material affect on the bodies of learners, since without bodies and affects there would be no pedagogy, nor even a learning subject. An ethics of respect for creative becoming is implied here, rather than rules of conduct for practice reduced to creative stasis.

Artistic practice can help understand the nature of this respect. An ethical statement can be found in the way Antonioni's characters demonstrate a special kind of sensitivity to the finitude of mutual materiality. Francis Bacon's contorted, eviscerated forms express an awareness of the fleshy materialism of bodily becoming:

> What fascinates Bacon is not movement, but its effect on an immobile body: heads whipped by the wind or deformed by an aspiration, but also all the interior forces that climb through the flesh. To make the spasm visible, the entire body becomes plexus. If there is feeling in Bacon, it is not a taste for horror, it is pity, an intense pity: pity for the flesh, including the flesh of dead animals…. (Deleuze, 1981b, p. xi)

This is a form of pity which does not regret the way things are, or condescend to offer consolation to those less fortunate. Above all, it is an unsentimental respect for the fragility inside which is simultaneously an expression of our link with the outside: the virtual movement which provides the condition for actual physical change as becoming, developing our power to be affected. The static forms of thought, representation, subjects and objects are destroyed (Le Colombat, 1990, p. 843), and mobile signs of intensity take over. A "crack" engenders originality, running through the body and compromising its organization. Anything which is good and great passes through this change, since events can only be grasped when inscribed in the flesh (Deleuze, 2004b, pp. 182).

The apparent abstraction of such an analysis can be attenuated by its direct relation to practice. Becoming offers the chance of going beyond what we thought possible in the knowledge that any effect can be achieved through other means, albeit means which can only be discovered by playing them out. For example, it offers a genuine alternative to a certain tendency towards abstraction in thought, as well as a reason to believe that creative conjunctions are not just virtually but actually possible and tangible within an altered view of agency. Moments such as the end of *L'Avventura* provide a poignant reminder of the ways in which a gesture can transform relations in significant ways and enhance our power to be further affected. Human suffering may be eternal, but a revolution can create new bonds between people (Deleuze and Guattari, 1994, p. 77). A material pity for the flesh humanizes fractured relationships, and uneasy emotional truces result from the need to go beyond given ideas and allow oneself to be carried beyond existing boundaries. In Antonioni's case, this crossing of the boundaries of mechanical conventions and preconceived notions is itself a moral act:

> And I believe that one must not start from preconceived ideas, from premises, because this mechanizes everything, it cools everything down. Rather, it is necessary to follow the story itself, the character themselves – who are what they are – and, in this way, express a certain morality. (Antonioni, in Cottino-Jones, 1996, p. 6)

Antonioni's contention that working from preconceived ideas "cools everything down" is as suggestive as it is elusive, but I would like to argue that it finds concrete expression in certain forms of pedagogy which aim to foster the "counter-actualization" of events, where my conclusion lies.

Conclusion: Counter-actualization

My chief concern in concluding this attempt to put Deleuze and a creative ethics into lifelong learning is to avoid falling into the prosaic, the trite. Is it not best to simply leave Deleuze's texts to speak for themselves? I like to hope that may have already happened, and to hope that it may continue to happen. But I also like to think that a more pragmatic focus on the implications of the points above for practice in lifelong learning is possible and worthwhile. What, practically speaking, can we learn from Deleuze?

No account of Deleuze's ethics would be complete without a consideration of the way events express the ontological movement of differenc/tiation and their practical counterpart, what Deleuze calls "counter-actualization". These two moments describe the operation of ontological difference as it is actualized: differen*t*iation concerns the determination of the virtual content of Ideas, which is succeeded by differen*c*iation, or the actualization of this virtuality into species or parts. The first is the way a problem is laid out initially as a multiplicity; the second, the way its different parts are established as finite (Deleuze, 2004a, p. 258). Rather than an attempt to show the transcendent importance of some other realm outside experience, the two moments are best understood as a zigzag movement between the virtual and the actual. Playing out this deeper potential for change is a "counter-actualization" of events:

> Counter-actualizing each event, the actor-dancer extracts the pure event which communicates with all the others and returns to itself through all the others, and with all the others. She makes of the disjunction a synthesis which affirms the disjunct as such and makes each series resonate inside the other. (Deleuze, 2004b, p. 204)

Deleuze's descriptions of counter-actualization reflect the allusive nature of what he wants to describe and what he thinks we should do. Events are always actualized insofar as they do not exist fully without their physical manifestation, and difference is deduced from its expression. If we are to grasp this, we must act by "doubling" events in order to avoid confusing them with their actualization (Deleuze, 2004b, p. 182). But they are only remarkable because they are singular, and we cannot actually fully understand them, because no event is actually "like" any other. Because of differenc/tiation, reality's events cannot be understood by simply analysing their actuality, but must be treated like problems. When solved, their mobile connections are falsely distributed and even perverted by falsity (Deleuze, 2004a, p. 259). To avoid this, we counter-actualize events by affirming or selecting the eternal return whose role, for Deleuze, is to redistribute difference, singularity and more intense ways of living.

Counter-actualization thus takes place at the intense limit of our faculties, where chaotic events diverge rather than repeat. As we have seen, for Deleuze, we cannot deal with experiences as spectators, but, rather, as actors who play them out by implicating ourselves in them. This is a risky dice throw whose outcome cannot (and should not) be calculated, because, when we encounter sense, we are changed by it, and so the process stutters along: we try to relate the new to what we know, fail and forget the past, building new meaning and changing as we go.

If we can change in this way, not just understanding but actually acting out the difference in events, we are counter-actualizing them, taking an ethical alternative to repeating ourselves *ad infinitum*. As counter-actualization, creativity necessarily opens the sphere of practice out to the limitless possibilities immanent to it, "playing out the event in the realm of sense in a different way" (Williams, 2008, p. 31). Effective counter-actualization introduces the new by actualizing an essential becoming-other, the source of endless complications. It replays events so that their potential for change is maximized, not regretted, reduced, disavowed or foreclosed: strafing the surface to transmute the stabbing of bodies into the actualization of life in events (Deleuze, 2004b, p. 182).

Creativity does this by expressing the significant aspects of our world dynamically in ways which will inevitably change them. Waging war against war (saying "no" to death, destruction, *ressentiment*, and other means of empty repetition) "counter-actualizes" experience by subtracting the banal from experience. Subtracting from experience that which makes it repetitive and dull replays it so that both its singularity and its expression of absolute difference can be perceived in ways which affect and empower

us to be further affected. It is a dance or theatrical performance whose creative response to events adds to the infinite series of enactments which precede them. But it is fully pragmatic, since it tells us more about what our bodies can do by developing the connections of which we are (becoming) capable. We may try to fix events or ignore their problematic nature; they are always already undermined when we counter-actualize them. What is revealed in this gesture is disjunction itself and its crucial role in ethical practice: one becomes the actor of one's own events (Deleuze, 2004b, p. 171). This is at once a form of creativity and of resistance.

At the heart of Deleuze's educational thinking is the question of the wish to be *led,* and many in lifelong learning see this "leading out" as a necessary, even desirable, part of the teacher's role (e.g. Brookfield, 2010; IfL, 2012b). Given our analysis of techniques of control in lifelong learning, it would be tempting to proclaim the need to resist being led in the name of "freedom". But for Deleuze this would be facile: the issue of resistance to being "led" needs to recognize the rhizomatic growth which produces freedom just as it produces oppression (Gregoriou, 2008, p. 101). Freedom will not come from "resisting" oppression if, in the process, resistance encourages a new orthodoxy of "critical" pedagogy or "emancipatory" education with its own clichés and commonplaces.

Ethically speaking, resistance does not mean a return to the same by creating a new paradigm to be applied, however critical. Indeed, it is *ressentiment*, not radicalism, which leads us to ignominiously "scratch our wounds" rather than enjoy the actuality of a creative life. On this view, our creativity must have a double relation with its own outside. It must incorporate disparate objects by developing relations between rather than within them, and it must resist the present in order to do so effectively (Deleuze, 2003, p. 300). To do this, a gap between dominant values makes them stutter because they are revealed by this interstice to be no longer self-sufficient (Bouaniche, 2007, p. 229). So, the kind of creativity which can be identified in Deleuze's thought explicitly implies resistance to a very explicit set of problems:

> [B]ooks of philosophy and works of art also contain their sum of unimaginable sufferings that forewarn of the advent of a people. They have resistance in common – their resistance to death, to servitude, to the intolerable, to shame, and to the present. (Deleuze and Guattari, 1994, p. 110)

Resistance to the present here refers to the actual: products, individuals, the given are all present insofar as we tend to take them for objects of

perception or agents of action. Effective resistance can, therefore, only be measured against each attempt to grasp events and thereby create new zones of space-time (Deleuze, 1990, p. 239). This is why to create is to resist, but only on the condition that our resistance expresses a new belief in the link between our actions and the material world.

Deleuze would not be the first to articulate such Romanticism in a desire for connection to the world. It may be the case that concrete social fields and particular moments in time are where we must seek ethical movements towards new ways of being (Deleuze and Parnet, 1996, p. 163), but Deleuze's appeal to a childlike faith in the real clashes with a more knowing, post-modern world which has "lost its innocence and its faith" (MacLure, 2011, p. 997). Education research itself may well be in ruins, given the erosion of its belief in truth claims and the possibility of wide-scale progressive change by so much post-theory.

Deleuze's naivety here is of a very particular sort, however, because it radically relocates the target of what we need to believe in. Post-war cinema points the way to this new target and a world in which we no longer believe, he suggests. We do not even believe in the everyday things that happen to us: the world resembles a bad film as a result, and we are unable to really act by either revealing meaning or reforming ourselves (Deleuze, 1984, p. 223). But, for Deleuze, cinema also reminds us that thought is cracked from the inside, and, thus, may be our best reason to believe in the world and the possibility of creativity which are embodied by this crack. For Antonioni, who expresses this visually, the world is a concept which is "always present in the image", because the image frames the world of everything that can be seen as well as the world of everything that cannot (Antonioni, 2003, p. 139). Cinema's paradox, and proof of its creativity, lies, therefore, in its ability to at once document this rupture and perform its healing. Its "time-image" situations "surge up" when sensorimotor links are undone, and, like the character, we are abandoned to what there is to see (Marrati, 2008, p. 61). Detached from sensorimotor situations and the ability to act on them, we become "seers", able to conceive duration, without which there would be no experience. As seers, movement shifts into thought, and we are affected and changed by experience, not mere spectators. Here, at least, is evidence that change will come, provided thought's essential mobility is shocked into action by the encounter.

Rather than suggesting ways of transforming the world, then, an encounter with this world leads to the fundamentally ethical necessity

of believing in its materiality, and our own, as bodies, "before or beyond words" (Deleuze, 2005b, p. 167). In *this* world, belief is our only link, and an ethical choice is imposed. This is a choice which no longer concerns opting for a particular term, since the links between the terms have been broken. It is, rather, the Pascalian opting for "the mode of existence of one who chooses" (Deleuze, 2005b, p. 171), choosing to have more choice in order to affirm one's participation in the world's becoming. On this view, we do not need some epistemological belief in an abstract world-object, but in an absolute form of creativity for ethical reasons. Faith in such a world is not an object of knowledge but of choice: we choose to live in this faith in immanence and in creating new possibilities of life (Marrati, 2008, p. 89), not in the forced choice of what is true or false.

I hope to have shown that this does not mean that "nothing is to be done" in the usual sense of the term (although saying nothing, and the production of silence, has its interests), not least as a form of protest against the demand for busyness in lifelong learning. Ambitious cinema such as Antonioni's, for this reason, does more than provide rich data about the methods and focus of research: it imposes choices and the need to make them, creating new visual and aural images whose purpose is not to re-present clichés, but to "give back" the body's relationship to a world (Lambert, 2002, p. 131). Bringing choices into play is the highest object of an art able to challenge bare repetition by displacing banality as an ethical leap of faith:

> We have to go beyond all spoken information; to extract from each a pure speech-act, a creative story-telling which is like the obverse of dominant myths, of current words and their keepers; an act capable of creating myth instead of drawing profit or business from it. (Deleuze, 2005b, p. 258)

Deleuze, of course, leaves it pretty much up to us to find out what these acts might be, but François Zourabichvili's (2005) summary of the possible implications of this approach is particularly useful here, because it draws on three suggestive tenets about teaching. The first is that teaching concerns an experimental process concerned with what we are looking for, not what we know, and the second that we do not know what makes a particular student learn or succeed. Third, he believes that thought, including what counts as true or false in a given context, only begins when we establish the problems which pertain to the context, not before. In essence, Zourabichvili tries to articulate

the implications for teaching of the fundamental principle in Deleuze's thought that we do not know what a body can do. These three implications of this for practice in lifelong learning are worth considering in more detail.

I think that Deleuze adds a certain depth to Jacques Rancière's account of an "ignorant schoolmaster" (Rancière, 2004; see also Bingham and Biesta, 2010). Rancière's history of the schoolteacher who taught without knowing suggests that in some situations the idea of basing learning around the establishment and resolution of problems without formal input is not just a way of being more productive, but an ethical reversal. Listening to problems and their different formulations in respect of their difference rather than prejudging them is a key skill in lifelong learning, and Deleuze's approach to teaching suggests that teacher educators can and should learn alongside their students. Lip service is paid to this principle in lifelong learning, but in my experience it is not always taken seriously. Joylessness, accompanied by Bruner's practical incompetence, is the direct result. Counter-actualization is a counter-practice to this joylessness. From a pedagogical perspective, this means working with education by problematizing it, and refusing to reduce learning to the communication of pre-established ideas and judgements, as we have seen. But it also means trying to foster this approach in others, in the belief that its essential dynamism is of the greatest possible benefit in today's complex world. Doing so, however, implies a degree of resistance to the forces of reification and homogenization criticized above. As part of a moralistic, productivist agenda with little interest in creativity itself, they represent a significant threat to lifelong learning.

Practising in this way implies the pursuit of an apprenticeship in signs, or a constant reappraisal of what the world has to communicate to and through us. "Lesson planning with a diagram" means a much more fluid, improvised approach to teaching, which tries to enact a number of procedures inspired by the artistic work described above. For example, we could talk about the *brossage* of cliché: recognizing pedagogical rules of thumb for what they are, rather than grandly elevating them to the status of method, replacing them with encounters between real people which affirm their contributions to the classroom ecology in a much more serious way. Inquiry-based teaching and learning complement and largely replace the didactics and disingenuous busyness of "classroom dynamics"; rich, inspiring materials offer a tangential view which undermines the information planned and prepared for the benefit of receptacle-learners whose needs were decided outside the classroom

door. Chance and error are welcomed and even provoked in a desire to find out what bodies can do.

It is important to stress, however, that what is being advocated is not a form of a-theoretical pragmatism. Creativity comes with improvisation, chance and error, through which teacher educators can be prepared to engage materially with a world of sensations. Preparing to deal with change means forms of training and education which embrace rather than attempt to purify or negate it. Far from implying an abdication of responsibility, lifelong learners must learn to pursue an almost obsessive concentration on details thrown up by the environment, and they must learn to conjugate their teaching and learning processes as a dynamic interaction with them. Improvisations, which allow surprise and novelty, but also relevance and engagement, should be systematically sought out, just as one looks around on a stroll for an unexpected alleyway, building or exhibition along the way. Chance encounters with the stuff of lifelong learning means a pedagogy of problems defined by the problem, not the solutions we expect before we set out. And error, underpinning every false movement, takes learning and learners into areas where information, skills and ideas make sense afresh. Like the events expressed in Antonioni's narrative and creative practice, learning in these spaces is emergent, unpredictable and provisional, driven by improvisation, chance and error. It creates more opportunities to learn and develop connections in an expansive way which opens practice out to the event of learning and its possibilities.

It is possible to summarize this by saying that lifelong learning needs to recognize its essentially expansive nature, which is to say that its virtual side accompanies its well-trodden paths of knowledge and understanding. Focusing on the capacity for differential change which makes the acquisition of new knowledge worthwhile in the long term means making changes that make a difference by shifting relations, not acquiring terms like packets of information whose relevance to a new future will always be in doubt. If creativity is to develop new relations rather than repeat terms, and if thought is to actually happen, it must follow an ethology of behaviour rather than codes of conduct which, in any case, are too abstract to be applied. Creativity, not clichés, helps prepare for a changing world by reminding us that the limits of pedagogical problems are not predetermined. A pedagogy built on genuine problems does not simply repay a debt, but counter-actualizes instead a whole creative topology. It is when teaching and learning set out to explore this topology that they become inspiring, exciting and worthy

of events. Thought, when it expands into this topology, comes to creative life:

> [I]t seems to us as if we have, as a reward, a yet undiscovered country before us whose boundaries none has ever seen, a land beyond all known lands and corners of the ideal, a world so overfull of the beautiful, strange, questionable, terrible and divine that our curiosity and our thirst for possession are both beside themselves so that nothing can satisfy us! (Nietzsche, 1992, p. 71)

Notes

Introduction: Deleuze and Lifelong Learning

1. All translations, unless otherwise indicated, are my own.

3   Making a Difference

1. "On ne peut confronter les activités qu'en fonction de ce qu'elles créent et de leur mode de création. [...] Ce qui est donné, à la limite, on pourrait toujours le nommer un flux. C'est les flux qui sont donnés et la création consiste à découper, organizer, connecter des flux, de telle manière que se dessine ou que se fasse une création autour de certaines singularités extraites des flux."

4   Creation at Work

1. Translation modified

5   An Ethics of Creativity for Lifelong Learning

1. "Je ne crois pas qu'une morale puisse se faire du point de vue d'une ontologie. Pourquoi? Parce que la morale ça implique toujours quelque chose de supérieur à l'être; ce qu'il y a de supérieur à l'être c'est quelque chose qui joue le rôle de l'un, du bien, c'est l'un supérieur à l'être. En effet, la morale c'est l'entreprise de juger non seulement tout ce qui est, mais l'être lui-même. Or on ne peut juger de l'être que au nom d'une instance supérieure à l'être." (Deleuze, 1980c)
2. e.g. "The design and implementation of the new teaching qualifications need to respond to the opportunities and challenges presented by changes to further education and skills workforce regulation, to the recommendations from CAVTL and to longstanding issues affecting the quality of initial teacher education" (LSIS, 2013, p. 5).

9   Errors and Learning

1. Translation modified

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